

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                                                                   |       |                                                                                |     |     |     |     |     |     |     |     |  |  |  |
|---------------------------------------------------------------------------------------------------|-------|--------------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|
|                                                                                                   |       | Section 1                                                                      |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   |       | (1)                                                                            | 1   | 10  | 20  | 30  | 40  | 50  | 60  | 74  |  |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (1)   | CTGCCCTCTGAGGCTGAGGTTGCAAGATGGA-AAGCCAGTGCTTTACCTGTTACTGTCGTTTACTGTTTGT        |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   | (1)   | --CGGGCACTGACGACATGGCATGTAGATTAAAGACCATAGATTAGAGTAGATTCGATGCCCTTTCAAGA         |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   | (1)   | TGT                                                                            |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   |       | Section 2                                                                      |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   |       | (75)                                                                           | 75  | 80  | 90  | 100 | 110 | 120 | 130 | 148 |  |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (74)  | GGGAGATTTCGACGGTGTAACTTTGAAATAAATG---TGACTTTTGAAGTCT--TGAGAACGAGAAAA--CAAGCCCT |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   | (73)  | AGCAG-TATAAATATAAATTAACCTGAATGCTATGATTTTGAACATTCAGTACAGCTGGATCGGACCCCT         |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   | (73)  | TGT                                                                            |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   |       | Section 3                                                                      |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   |       | (149)                                                                          | 149 | 160 | 170 | 180 | 190 | 200 | 210 | 222 |  |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (138) | CCCA---TGCACTCTGTTTGTGTTTGTTCATTTTGTTTTTGTGAGATGGAGTTTCAAC---TCTTGTCAACCAG     |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   | (146) | TCCAAGTTGGGAAGTATATATGATACAGTTAATACCTGATTGTTCAAGATATTCACAGTTATCGTTTGAACGGC     |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   | (146) | TGT                                                                            |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   |       | Section 4                                                                      |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   |       | (223)                                                                          | 223 | 230 | 240 | 250 | 260 | 270 | 280 | 296 |  |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (206) | GCTGGAGTGCACCTTGCGCG-ATCT---CGGCTTACTTGCAACTCTGCCTCCTGGGTTCAAGGCAAATCTCTTGC    |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   | (220) | GCCAGACATCTTTATCGCCTAACTTTTGACAGTCTTATAAAGCTAAAATACT---TTTCGAGAAATACGTCTCG     |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   | (220) | TGT                                                                            |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   |       | Section 5                                                                      |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   |       | (297)                                                                          | 297 | 310 | 320 | 330 | 340 | 350 | 360 | 370 |  |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (275) | CTCAGACTCCCAAGTAGCTGGGATTACAGGTGCCCACTACCAGGCTGGCTAATTTTGTATTTTAAATAGAGA       |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   | (291) | CTATCGCTACAGAGT-GTAATGATTTTAGAA--CTGACTATTTAGTTGAAAGTGGTTTGAGGTTCTTATAACGT     |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   | (291) | TGT                                                                            |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   |       | Section 6                                                                      |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   |       | (371)                                                                          | 371 | 380 | 390 | 400 | 410 | 420 | 430 | 444 |  |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (349) | CGGGGTTCACACGTTGGTCAGGCTGGTCTC--AACTGACTTCAGGTGATCACTCACCTTG-GCTTCCCAG         |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   | (362) | CGAA--TCGCTGGGGGATATACGCTCTTCCCTTAATTAACACTAGGCCCATCACTTAATAAATGCATAAAAAG      |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   | (362) | TGT                                                                            |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   |       | Section 7                                                                      |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   |       | (445)                                                                          | 445 | 450 | 460 | 470 | 480 | 490 | 500 | 518 |  |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (420) | AGTGGTGGGATTACA-----AGCATGAGCCACACACCTGGCCCAGTGTGTCTGTTTTGCAGCTACTTCCAGG       |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   | (434) | CATACCTTTATTTCAAGGTCTAGCTTGA-CGGTCGTATTTATAATAATA-GACTATTTT---CTTCTTAGAAT      |     |     |     |     |     |     |     |     |  |  |  |
|                                                                                                   | (434) | TGT                                                                            |     |     |     |     |     |     |     |     |  |  |  |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                                                                  |       |                                     |                               |          |                |                    |           |        |           |               |                        |
|--------------------------------------------------------------------------------------------------|-------|-------------------------------------|-------------------------------|----------|----------------|--------------------|-----------|--------|-----------|---------------|------------------------|
|                                                                                                  |       | Section 8                           |                               |          |                |                    |           |        |           |               |                        |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (519) | 519                                 | 530                           | 540      | 550            | 560                | 570       | 580    | 592       |               |                        |
|                                                                                                  | (488) | CCTGGTGTGAGGTTGTAAAGAGACA           | CGG                           | GGTGC    | TCCGGG         | CCAGCA             | TC        | AAGCC  | TTTC      | AGGATG        | GCCTGAGGAGA            |
|                                                                                                  | (502) | GGCTTT-TCTGCTGGGAAGCTAATCAAG        | ----                          | TAA      | GAA            | CA                 | ATG       | TC     | CGAAT     | TGAA          | AGGATGTACTC-GTACA      |
|                                                                                                  |       | Section 9                           |                               |          |                |                    |           |        |           |               |                        |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (593) | 593                                 | 600                           | 610      | 620            | 630                | 640       | 650    | 666       |               |                        |
|                                                                                                  | (562) | AGAG-----CACTGGGGGCGGTGT--TTGCCACA  | TGGCGGGA                      | AGC      | CCAG           | GAAGTGGC           | AG        | CCGGGG | CACAGG    | --            |                        |
|                                                                                                  | (569) | ATACTTAGAGCCAA                      | GGAGCATTTTAAATTCCTAATTACATCCT | AGC      | TGATG          | TTTCTTA            | ATCC      | TAAA   | CACA      | AGTA          |                        |
|                                                                                                  |       | Section 10                          |                               |          |                |                    |           |        |           |               |                        |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (667) | 667                                 | 680                           | 690      | 700            | 710                | 720       | 730    | 740       |               |                        |
|                                                                                                  | (626) | AGCAGCGTGTGG---CCAG-GCCTCCCTTGCCCGC | TGGAGAA                       | GCTGC    | GGGC           | AGCAA--            | GGCC      | AGGA   | AG-ATGG   |               |                        |
|                                                                                                  | (643) | AGCTCATTAAGG                        | AAAACTAATGTTT                 | TTT      | TAGTG          | CTTT               | TTTATACG  | -TGC   | CTTT      | ATCAA         | TTGGGTATACAGTATCG      |
|                                                                                                  |       | Section 11                          |                               |          |                |                    |           |        |           |               |                        |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (741) | 741                                 | 750                           | 760      | 770            | 780                | 790       | 800    | 814       |               |                        |
|                                                                                                  | (693) | GCA                                 | AGCA                          | GAGAA    | GGC            | CCGGGCC            | CCACAGG   | CC     | TTCCAGC   | ATGGC         | CAGTGGC                |
|                                                                                                  | (716) | CAATT                               | TGGA                          | TAA      | AATCT          | TATTG              | CGATTTT   | CCGC   | CTGT      | TAA           | TATCAATAATCG           |
|                                                                                                  |       | Section 12                          |                               |          |                |                    |           |        |           |               |                        |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (815) | 815                                 | 820                           | 830      | 840            | 850                | 860       | 870    | 888       |               |                        |
|                                                                                                  | (767) | AGCAGCA                             | GGCA                          | GGAGAGAG | CGCTGGGG       | CCCAG              | GCA       | GCC    | CAGTGC    | -TGGACT       | TGGTGC                 |
|                                                                                                  | (789) | AAAATAT                             | GG--GGCTATAG                  | TCTTT--  | CCCAG          | TTT                | GAC       | GGT    | TGGA      | TGCTCAT       | TTTATATACGTCTATATGAATT |
|                                                                                                  |       | Section 13                          |                               |          |                |                    |           |        |           |               |                        |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (889) | 889                                 | 900                           | 910      | 920            | 930                | 940       | 950    | 962       |               |                        |
|                                                                                                  | (840) | TGAGT-CCT                           | GTCGGGCC                      | AGGT     | CAGCCG         | AGCCCA             | TGCTTCCT  | GGAG   | CCG--CGA  | GCCTGG        | TAG-TGCTGTG-           |
|                                                                                                  | (858) | TGTGTTCGC                           | GTC                           | TTGCTG   | ATATATT        | TGGTATGAATTAAGAGAC | GGTTGT    | CATC   | CTTGCCTCT | TAAGATTCTGTGA |                        |
|                                                                                                  |       | Section 14                          |                               |          |                |                    |           |        |           |               |                        |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (963) | 963                                 | 970                           | 980      | 990            | 1000               | 1010      | 1020   | 1036      |               |                        |
|                                                                                                  | (909) | GTCTAAGTGC                          | AGCCCCA                       | CTCTGTG  | CTTCCAG-CTCA-- | GGC                | CTCAAG    | CC-TGT | TTT       | TGGC          | AGGGGTAGAGCGT          |
|                                                                                                  | (932) | GACTAAGTGC                          | CTTTGTG                       | CTATG    | CTTCTAT        | CTAATTGTT          | CTATATCTA | TACTGC | TAACTCTCC | TTCTCAGC      |                        |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                      |        |                                                                              |      |      |      |      |      |      |      |      |  |
|------------------------------------------------------|--------|------------------------------------------------------------------------------|------|------|------|------|------|------|------|------|--|
|                                                      |        | Section 15                                                                   |      |      |      |      |      |      |      |      |  |
|                                                      |        | (1037)                                                                       | 1037 | 1050 | 1060 | 1070 | 1080 | 1090 | 1100 | 1110 |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (978)  | AATTTCATGGCTGGTGGCAGGGCAAAGGCTCAAGAGGGTGGTTGGGGGTGACAGGGAGAGGCCGCCCTG---GC   |      |      |      |      |      |      |      |      |  |
|                                                      | (1006) | TATTTCACGCTGTACG--ATGTACGAAGGCCAAATTATTATATATAAAACCCTAAAAG-AGGCCTGTATGTCTGC  |      |      |      |      |      |      |      |      |  |
|                                                      |        | Section 16                                                                   |      |      |      |      |      |      |      |      |  |
|                                                      |        | (1111)                                                                       | 1111 | 1120 | 1130 | 1140 | 1150 | 1160 | 1170 | 1184 |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (1049) | CATCTAGTCTGGGGCCAATCCTGACACCGCCCTCTGCTGTGTGTGTCCCTCCTTGGGGAGTCTCTAATGGTCA    |      |      |      |      |      |      |      |      |  |
|                                                      | (1077) | TCGATATGACGTTTAAAGCATTTTGATATGA--TTGTGTGTGAGGTGCTCATGCGATAAATGTGTAAGCGGTCT   |      |      |      |      |      |      |      |      |  |
|                                                      |        | Section 17                                                                   |      |      |      |      |      |      |      |      |  |
|                                                      |        | (1185)                                                                       | 1185 | 1190 | 1200 | 1210 | 1220 | 1230 | 1240 | 1258 |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (1123) | T--GCTTTCAGTCACCAAGCACAGCCAGCCACTCAGCA-AGCGCCATAAACGCGCTCTTGCAGGGGAAAGGGGAG  |      |      |      |      |      |      |      |      |  |
|                                                      | (1148) | TTTAGTTTTCAGCACGAATCACTGGTATTAAATTTGTTCATTAACTTTTTAACCTTATAAATTTCGTTGGTGT    |      |      |      |      |      |      |      |      |  |
|                                                      |        | Section 18                                                                   |      |      |      |      |      |      |      |      |  |
|                                                      |        | (1259)                                                                       | 1259 | 1270 | 1280 | 1290 | 1300 | 1310 | 1320 | 1332 |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (1194) | GCAAGAGTGGCACTGGCAGGACTGTCCCT---TCTCTGCCCTTAAACAGG-ATGCTTGTCCCGTCTGTGATTT    |      |      |      |      |      |      |      |      |  |
|                                                      | (1222) | GCTAGGGGCCATAATGAAATCCACCAAACTGTAAATTGTGACATTAATTTTTTCAAAAAAGGGCTCTCAGTATTTA |      |      |      |      |      |      |      |      |  |
|                                                      |        | Section 19                                                                   |      |      |      |      |      |      |      |      |  |
|                                                      |        | (1333)                                                                       | 1333 | 1340 | 1350 | 1360 | 1370 | 1380 | 1390 | 1406 |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (1263) | TCTCTCTTCCAAGTTCGCTCTCCATCCTGTTTACCCAGATTCTCCCTCCAGAAAGGGAGTGTGGGAGGTGGGTGG  |      |      |      |      |      |      |      |      |  |
|                                                      | (1296) | ATTGCAATAGCGGT---TTTCCATGA-GTTTATCTATAA-----CGCACGAATTCTAATTTTCCAGTAGTAGAA   |      |      |      |      |      |      |      |      |  |
|                                                      |        | Section 20                                                                   |      |      |      |      |      |      |      |      |  |
|                                                      |        | (1407)                                                                       | 1407 | 1420 | 1430 | 1440 | 1450 | 1460 | 1470 | 1480 |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (1337) | GCCCAAGCTGGGGCTGGGCCTCGGAAGGCCCTTCCCGCAGGCACTGGGGGGGCT---CCCTGCAGAGAGTCT     |      |      |      |      |      |      |      |      |  |
|                                                      | (1361) | GTCCCAATATTCAGCTGTTGCTTTTGAAGAC---TAACTTATGTCAATGGGATAGCTATACCAAAATACGTGT    |      |      |      |      |      |      |      |      |  |
|                                                      |        | Section 21                                                                   |      |      |      |      |      |      |      |      |  |
|                                                      |        | (1481)                                                                       | 1481 | 1490 | 1500 | 1510 | 1520 | 1530 | 1540 | 1554 |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (1407) | CTGGCCTTATG-GCCCTG---GCTGCAGACTCTTCCTCTCCCGCAGGCTCCTAGAGGCT--CGGTGCAGTCT     |      |      |      |      |      |      |      |      |  |
|                                                      | (1432) | ATGGGCTGAACGTGAACAGAAAGTTCGAAGCAGCGAATACGCGGGGTATGTAAATATGTCCGCAGTATGAT      |      |      |      |      |      |      |      |      |  |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                                                                  |        |            |      |      |      |      |      |      |      |   |   |
|--------------------------------------------------------------------------------------------------|--------|------------|------|------|------|------|------|------|------|---|---|
|                                                                                                  |        | Section 22 |      |      |      |      |      |      |      |   |   |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (1555) | 1555       | 1560 | 1570 | 1580 | 1590 | 1600 | 1610 | 1628 |   |   |
|                                                                                                  | (1475) | G          | G    | G    | G    | G    | G    | G    | G    | G | G |
|                                                                                                  | (1506) | G          | A    | G    | A    | G    | A    | G    | A    | G | A |
|                                                                                                  |        | Section 23 |      |      |      |      |      |      |      |   |   |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (1629) | 1629       | 1640 | 1650 | 1660 | 1670 | 1680 | 1690 | 1702 |   |   |
|                                                                                                  | (1547) | G          | A    | C    | A    | G    | T    | G    | C    | A | G |
|                                                                                                  | (1580) | T          | A    | A    | T    | A    | C    | C    | G    | A | C |
|                                                                                                  |        | Section 24 |      |      |      |      |      |      |      |   |   |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (1703) | 1703       | 1710 | 1720 | 1730 | 1740 | 1750 | 1760 | 1776 |   |   |
|                                                                                                  | (1618) | T          | C    | A    | -    | C    | G    | C    | -    | T | C |
|                                                                                                  | (1652) | T          | A    | A    | A    | C    | G    | A    | A    | T | A |
|                                                                                                  |        | Section 25 |      |      |      |      |      |      |      |   |   |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (1777) | 1777       | 1790 | 1800 | 1810 | 1820 | 1830 | 1840 | 1850 |   |   |
|                                                                                                  | (1690) | A          | G    | G    | A    | G    | C    | T    | A    | G | C |
|                                                                                                  | (1720) | T          | G    | C    | G    | G    | A    | T    | A    | T | A |
|                                                                                                  |        | Section 26 |      |      |      |      |      |      |      |   |   |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (1851) | 1851       | 1860 | 1870 | 1880 | 1890 | 1900 | 1910 | 1924 |   |   |
|                                                                                                  | (1764) | G          | G    | T    | G    | G    | T    | G    | G    | C | A |
|                                                                                                  | (1786) | -          | G    | T    | G    | G    | T    | T    | -    | - | - |
|                                                                                                  |        | Section 27 |      |      |      |      |      |      |      |   |   |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (1925) | 1925       | 1930 | 1940 | 1950 | 1960 | 1970 | 1980 | 1998 |   |   |
|                                                                                                  | (1837) | A          | G    | T    | C    | A    | G    | C    | C    | T | C |
|                                                                                                  | (1854) | T          | C    | A    | T    | C    | A    | T    | C    | A | T |
|                                                                                                  |        | Section 28 |      |      |      |      |      |      |      |   |   |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (1999) | 1999       | 2010 | 2020 | 2030 | 2040 | 2050 | 2060 | 2072 |   |   |
|                                                                                                  | (1910) | G          | C    | A    | G    | G    | T    | C    | C    | G | G |
|                                                                                                  | (1924) | G          | C    | A    | G    | G    | T    | C    | C    | G | G |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                                                                   |        |                            |                 |                 |                |               |                 |               |                        |
|---------------------------------------------------------------------------------------------------|--------|----------------------------|-----------------|-----------------|----------------|---------------|-----------------|---------------|------------------------|
| Section 29                                                                                        |        |                            |                 |                 |                |               |                 |               |                        |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (2073) | 2073                       | 2080            | 2090            | 2100           | 2110          | 2120            | 2130          | 2146                   |
|                                                                                                   | (1979) | CTCAGCGGTGCAGTTGAGGATCAGAA | TAGGTA          | CACGAGGACAGTAGC | ATTTT          | TTTGTCA       | AGTTT           | TTT           | TTGTTTAT               |
|                                                                                                   | (1997) | TACTCTATTTC--TACGCTAT      | TGCTTTACGTA     | GTTGTCATTATTTTG | AGGCTATAGGAGG  | AGTTGTCT      | GGTTT           | GG            |                        |
| Section 30                                                                                        |        |                            |                 |                 |                |               |                 |               |                        |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (2147) | 2147                       | 2160            | 2170            | 2180           | 2190          | 2200            | 2210          | 2220                   |
|                                                                                                   | (2052) | TTTGTGACACAGAGTCTGGCT      | -CAATTGCC       | CAGGCT          | -GAAGCAGAGGA   | GTGATCTCAGCT  | CAC             | TGCAACCTCTG   |                        |
|                                                                                                   | (2069) | ATTTCGAACGGGCTCTTTT        | TCAAAGAATCTAGCT | AGAAACGAATCT    | GTTCATGACACATG | TGATACCTA     |                 |               |                        |
| Section 31                                                                                        |        |                            |                 |                 |                |               |                 |               |                        |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (2221) | 2221                       | 2230            | 2240            | 2250           | 2260          | 2270            | 2280          | 2294                   |
|                                                                                                   | (2123) | CCTCCC                     | GGGT-----       | CAAGTGAT        | T--CTCC        | CGCCTCAGCT    | TCCTGAG---      | TAGCTGGG      | ACTACAAG-----T         |
|                                                                                                   | (2143) | CCTTAAG                    | TTC             | TGATAAA         | CAAGTG         | TATAAC        | ACCAGTATCT      | GACTAAAGAAATA | TTCCATAAACGCGAAGGACGAT |
| Section 32                                                                                        |        |                            |                 |                 |                |               |                 |               |                        |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (2295) | 2295                       | 2300            | 2310            | 2320           | 2330          | 2340            | 2350          | 2368                   |
|                                                                                                   | (2181) | GACGCCA                    | CCACGGCTGGCTAAT | TTTGTAT         | TTTTAGTAG      | GAGACGGGGT    | TTACCATATTG     | CCCAAGCTGGTCT |                        |
|                                                                                                   | (2217) | ACATAGGT                   | CCAC            | CAGTGGGAGCTT    | CAGGATGCCCT    | GATGTATTG     | AACGTCTACTCTATT | TCTTTTTCTG    | TTCA                   |
| Section 33                                                                                        |        |                            |                 |                 |                |               |                 |               |                        |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (2369) | 2369                       | 2380            | 2390            | 2400           | 2410          | 2420            | 2430          | 2442                   |
|                                                                                                   | (2255) | CGAAC                      | TCCTGA          | ACTCAAG--       | TGATCCTCCAC    | CTCGACTTCCCAA | AGTGCTGGG       | ATTACAGG      | -TGTGAGGCAC            |
|                                                                                                   | (2291) | AGTGG                      | TCCTGA          | CA              | TGGGTTT        | TGGTGGTAGGG   | CTAAACGAC       | CAAACT-----   | ATTAGGGCTATAAGCT--C    |
| Section 34                                                                                        |        |                            |                 |                 |                |               |                 |               |                        |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (2443) | 2443                       | 2450            | 2460            | 2470           | 2480          | 2490            | 2500          | 2516                   |
|                                                                                                   | (2326) | GCGC                       | CAGGC           | CAAGTTT         | TTTTTTCTTAT    | TGGAAAGT      | GAAATAT--G--CTT | ATTACAGAAAC   | CTCAGAAAT              |
|                                                                                                   | (2357) | ACGC                       | AAG--           | CAAAATAT        | TTCTAT         | TCGGAGCTGCC   | AAAGACTTTTT     | TCGTGGGAT     | TTCTTACAAATCGTTTC      |
| Section 35                                                                                        |        |                            |                 |                 |                |               |                 |               |                        |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (2517) | 2517                       | 2530            | 2540            | 2550           | 2560          | 2570            | 2580          | 2590                   |
|                                                                                                   | (2396) | ATAAAGT                    | AGAAAA          | ATACCAAA        | ATTTCTTT       | CATAATCTCT    | CTACCCAAAGGC    | ATCGGT        | CAGTCCCTCTCCAGAC       |
|                                                                                                   | (2429) | CTGTTGG                    | ACAGATATA       | TTTGCA          | CAAAATTT       | TGGATTACT     | TACGAGGCGG      | AAAAATC       | TTT--TTCTTATAAACTG     |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                                                                  |        |            |       |       |       |       |       |       |       |        |      |
|--------------------------------------------------------------------------------------------------|--------|------------|-------|-------|-------|-------|-------|-------|-------|--------|------|
|                                                                                                  |        | Section 36 |       |       |       |       |       |       |       |        |      |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (2591) | 2591       | 2600  | 2610  | 2620  | 2630  | 2640  | 2650  | 2664  |        |      |
|                                                                                                  | (2470) | CAGAA      | G CAG | -TTAG | TTC   | TGAC  | ACCAA | CAAGT | GGT   | GATAAG | AGGT |
|                                                                                                  | (2500) | TATTC      | GGG   | ATTA  | T TAG | TATCT | CCAG  | CAAGT | ATT   | TA     | ---  |
|                                                                                                  |        | Section 37 |       |       |       |       |       |       |       |        |      |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (2665) | 2665       | 2670  | 2680  | 2690  | 2700  | 2710  | 2720  | 2738  |        |      |
|                                                                                                  | (2543) | ACCAA      | ACC   | AAC   | CAC   | AAAAA | TGAC  | AC    | TG    | CAC    | AG   |
|                                                                                                  | (2570) | ATTTTT     | TTA   | TGTT  | GGGG  | TTC   | CATT  | TG    | ACT   | GTT    | AAT  |
|                                                                                                  |        | Section 38 |       |       |       |       |       |       |       |        |      |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (2739) | 2739       | 2750  | 2760  | 2770  | 2780  | 2790  | 2800  | 2812  |        |      |
|                                                                                                  | (2617) | ACT        | TGG   | CAGG  | --TG  | AGG   | -TAG  | TGT   | CC    | CTA    | AG   |
|                                                                                                  | (2642) | CT         | TAG   | GAGG  | AC    | TG    | TGG   | TAT   | TG    | GG     | CG   |
|                                                                                                  |        | Section 39 |       |       |       |       |       |       |       |        |      |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (2813) | 2813       | 2820  | 2830  | 2840  | 2850  | 2860  | 2870  | 2886  |        |      |
|                                                                                                  | (2688) | --A        | AT    | -AC   | GTT   | TTA   | GA    | --GA  | AG    | AT     | TC   |
|                                                                                                  | (2714) | CGG        | AT    | TAC   | TGC   | TTA   | CCAG  | GT    | AG    | GC     | TC   |
|                                                                                                  |        | Section 40 |       |       |       |       |       |       |       |        |      |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (2887) | 2887       | 2900  | 2910  | 2920  | 2930  | 2940  | 2950  | 2960  |        |      |
|                                                                                                  | (2757) | CA         | GA    | CAGT  | -GT   | CTC   | ACT   | CTGT  | CGCCC | AGG    | CC   |
|                                                                                                  | (2787) | GG         | GA    | GGTAC | GT    | GCA   | AGA   | CTGT  | T---- | AGG    | AA   |
|                                                                                                  |        | Section 41 |       |       |       |       |       |       |       |        |      |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (2961) | 2961       | 2970  | 2980  | 2990  | 3000  | 3010  | 3020  | 3034  |        |      |
|                                                                                                  | (2830) | CA         | GGG   | CT    | CAAAC | GATC  | CTC   | CCAC  | CTCA  | GCCA   | CT   |
|                                                                                                  | (2854) | CA         | TTG   | GT    | T---- | GATC  | TGA   | CAAC  | TGGT  | GTTT   | CT   |
|                                                                                                  |        | Section 42 |       |       |       |       |       |       |       |        |      |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (3035) | 3035       | 3040  | 3050  | 3060  | 3070  | 3080  | 3090  | 3108  |        |      |
|                                                                                                  | (2903) | TA         | AT    | TT    | TT    | TT    | TT    | TT    | TT    | TT     | TT   |
|                                                                                                  | (2924) | TAG        | AT    | TAA   | TAA   | TAA   | TT    | AC    | TTT   | AC     | --   |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                                                                   |        |                |        |           |            |         |              |         |         |        |           |        |         |        |       |         |        |      |        |        |      |        |       |    |      |
|---------------------------------------------------------------------------------------------------|--------|----------------|--------|-----------|------------|---------|--------------|---------|---------|--------|-----------|--------|---------|--------|-------|---------|--------|------|--------|--------|------|--------|-------|----|------|
|                                                                                                   |        | Section 43     |        |           |            |         |              |         |         |        |           |        |         |        |       |         |        |      |        |        |      |        |       |    |      |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (3109) | 3109           | 3120   | 3130      | 3140       | 3150    | 3160         | 3170    | 3182    |        |           |        |         |        |       |         |        |      |        |        |      |        |       |    |      |
|                                                                                                   | (2977) | CAAGCGATCTTACC | TGCC   | TTGGCC    | TCCAAAGCAT | TGGGC   | -----AGGCCCA | TTACGCC | ATGAGCC | ACC    | ACA       |        |         |        |       |         |        |      |        |        |      |        |       |    |      |
|                                                                                                   | (2995) | GTAT---TTTCAT  | TGTA   | TTAT--TTC | TGACGCATG  | TGGGC   | GCATCGC      | GACATT  | TTAGGAA | AACAG  | GTATAATAG |        |         |        |       |         |        |      |        |        |      |        |       |    |      |
|                                                                                                   |        | Section 44     |        |           |            |         |              |         |         |        |           |        |         |        |       |         |        |      |        |        |      |        |       |    |      |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (3183) | 3183           | 3190   | 3200      | 3210       | 3220    | 3230         | 3240    | 3256    |        |           |        |         |        |       |         |        |      |        |        |      |        |       |    |      |
|                                                                                                   | (3044) | CTGCT---       | GGTTTT | GT        | TTT        | TAAAT   | TGGAAT       | TGAAAGG | AAC     | TAGCC  | TTGGCT    | AGT    | TG--    | CAG    | AATT  | CACACAT |        |      |        |        |      |        |       |    |      |
|                                                                                                   | (3064) | TTTTTATAG      | GT     | TTTTT     | TA         | TTA     | TAAAA        | ACT     | AAAT    | CTC    | ATT       | AA     | TAG     | TG     | TTGT  | CAACGT  | TTCGT  | ATT  | TAGTTC | TT     |      |        |       |    |      |
|                                                                                                   |        | Section 45     |        |           |            |         |              |         |         |        |           |        |         |        |       |         |        |      |        |        |      |        |       |    |      |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (3257) | 3257           | 3270   | 3280      | 3290       | 3300    | 3310         | 3320    | 3330    |        |           |        |         |        |       |         |        |      |        |        |      |        |       |    |      |
|                                                                                                   | (3113) | TGGGG          | GCTATG | GCAACAGC  | AGATT      | CTGGAG  | TCTCAG       | GGTCT   | TTTTCT  | TTC    | TAGATA    | AGT    | TAC-    | AGGGCA | ATT   | GCTT    |        |      |        |        |      |        |       |    |      |
|                                                                                                   | (3138) | TGAAG          | GCAATG | TCTA      | TTTTA      | TAG-CT  | CTAT         | TAAAT   | AAAGGT  | TTCAAG | TATT      | TGTGGT | GATAC   | TAGAAT | C     | ATT     | CAGT   |      |        |        |      |        |       |    |      |
|                                                                                                   |        | Section 46     |        |           |            |         |              |         |         |        |           |        |         |        |       |         |        |      |        |        |      |        |       |    |      |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (3331) | 3331           | 3340   | 3350      | 3360       | 3370    | 3380         | 3390    | 3404    |        |           |        |         |        |       |         |        |      |        |        |      |        |       |    |      |
|                                                                                                   | (3186) | TTCA           | GAGT   | ACTTT-    | TACAT      | TTCTATT | CCAT         | TCTTT   | GT-CAGT | ---    | AAAGA     | CAA    | GGAT    | CCCC   | ATAAG | C-TGA   | TGGAG  |      |        |        |      |        |       |    |      |
|                                                                                                   | (3211) | TGGT           | GTGT   | TTGAGG    | TAAAG      | CTCCC   | -CGAT        | AG      | TTATA   | CAGT   | TTCA      | CGTT   | CAA     | AC     | AGAAT | ATAAT   | C      | TGA  | CTTTC  |        |      |        |       |    |      |
|                                                                                                   |        | Section 47     |        |           |            |         |              |         |         |        |           |        |         |        |       |         |        |      |        |        |      |        |       |    |      |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (3405) | 3405           | 3410   | 3420      | 3430       | 3440    | 3450         | 3460    | 3478    |        |           |        |         |        |       |         |        |      |        |        |      |        |       |    |      |
|                                                                                                   | (3254) | AAACT          | GAGGC  | --TCT     | AGAA       | CTA     | AAC          | GCTGGG  | AA      | TGG    | CA        | CCC    | AGGG    | TGC    | TGAAT | TCCAG   | GGT    | CTCT | CTTT   | TT     |      |        |       |    |      |
|                                                                                                   | (3284) | TAA            | TGGA   | AGC       | AGT        | TATA    | ACAA         | TTCA    | AAC     | CAATTA | AA        | CCA    | CA      | ATA    | AC--  | TGC     | AT     | AAT  | G      | TCCAGT | GAGA | CAAAAC | TA    |    |      |
|                                                                                                   |        | Section 48     |        |           |            |         |              |         |         |        |           |        |         |        |       |         |        |      |        |        |      |        |       |    |      |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (3479) | 3479           | 3490   | 3500      | 3510       | 3520    | 3530         | 3540    | 3552    |        |           |        |         |        |       |         |        |      |        |        |      |        |       |    |      |
|                                                                                                   | (3325) | CTG            | CCA    | CAGGC     | AC         | ACAT    | GCCCC        | AG      | AGC     | CC     | CTT       | GGAG   | A-----  | GCC    | CCC   | TCTC    | TA     | TAGG | GT     | ACT    | TAGC | CGGG   |       |    |      |
|                                                                                                   | (3356) | C--            | CAG    | CAAGC     | GGAT       | AT      | TTATT        | AG      | AGC     | TCT    | TAA       | GGAC   | ATAAAAT | GCC    | GGT   | T       | TAATAG | TA   | GT     | TG     | T    | GAT    | CTAC  |    |      |
|                                                                                                   |        | Section 49     |        |           |            |         |              |         |         |        |           |        |         |        |       |         |        |      |        |        |      |        |       |    |      |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (3553) | 3553           | 3560   | 3570      | 3580       | 3590    | 3600         | 3610    | 3626    |        |           |        |         |        |       |         |        |      |        |        |      |        |       |    |      |
|                                                                                                   | (3392) | GGCT           | CAGAC  | CT        | GGAG       | TCA     | GAC          | CG      | GCT     | T      | CGAG      | GGA    | TGAG    | GC     | CT    | CAG     | CAA    | GTA  | ACT    | CAG    | CTT  | TGAA   | AT--- | GT |      |
|                                                                                                   | (3427) | GCCC           | CCTTA  | TGT       | TTCC       | TCA     | CT           | CGA     | CT      | G      | CAGA      | AC     | GGA     | AATA   | GCG   | TAG     | GT     | CGG  | G      | CATC   | -CT  | GAAA   | TGCC  | AT | TCCG |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                       |                             |            |      |       |       |       |        |        |      |         |            |        |            |         |          |        |           |       |         |       |         |         |         |        |       |        |        |      |      |     |     |     |       |       |     |
|-------------------------------------------------------|-----------------------------|------------|------|-------|-------|-------|--------|--------|------|---------|------------|--------|------------|---------|----------|--------|-----------|-------|---------|-------|---------|---------|---------|--------|-------|--------|--------|------|------|-----|-----|-----|-------|-------|-----|
|                                                       |                             | Section 50 |      |       |       |       |        |        |      |         |            |        |            |         |          |        |           |       |         |       |         |         |         |        |       |        |        |      |      |     |     |     |       |       |     |
|                                                       |                             | (3627)     | 3627 | 3640  | 3650  | 3660  | 3670   | 3680   | 3690 | 3700    |            |        |            |         |          |        |           |       |         |       |         |         |         |        |       |        |        |      |      |     |     |     |       |       |     |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | SARS-CoV-2 Reference Genome | (3462)     | TTT  | CAGT  | GGGGA | GAGAA | ATAGC  | CCCC   | TC   | CCAGGGC | TGTGCTCC   | GG--   | GAACTGACTG | AGGG    | CTAACTAT | TTATGG |           |       |         |       |         |         |         |        |       |        |        |      |      |     |     |     |       |       |     |
|                                                       | Shuffle No.1                | (3500)     | ACC  | CTTAG | TGGA  | TCGAA | TAGG   | CTTTT  | TC   | AGATTCA | TATATATAAA | GAGT   | GAA        | TATTTAC | AGGC     | CAAA   | TCGTTTATG |       |         |       |         |         |         |        |       |        |        |      |      |     |     |     |       |       |     |
|                                                       |                             | Section 51 |      |       |       |       |        |        |      |         |            |        |            |         |          |        |           |       |         |       |         |         |         |        |       |        |        |      |      |     |     |     |       |       |     |
|                                                       |                             | (3701)     | 3701 | 3710  | 3720  | 3730  | 3740   | 3750   | 3760 | 3774    |            |        |            |         |          |        |           |       |         |       |         |         |         |        |       |        |        |      |      |     |     |     |       |       |     |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | SARS-CoV-2 Reference Genome | (3534)     | GCC  | CA    | CCCC  | ATTG  | TGGAAT | GTCT   | T    | CAGCC   | ACATGG     | GGGAAT | GGGT       | GGAA    | GAGG     | CCGG   | ATGTGT    | CCTG  | CCAGC   |       |         |         |         |        |       |        |        |      |      |     |     |     |       |       |     |
|                                                       | Shuffle No.1                | (3574)     | ATT  | CG    | CCTA  | ATTG  | TG     | GAAT   | GTCT | T       | CACTT      | ACTTGG | TATTTG     | GAGC    | GTAA     | TTC    | CTAGAAT   | TGTG  | TCA     | CGATG |         |         |         |        |       |        |        |      |      |     |     |     |       |       |     |
|                                                       |                             | Section 52 |      |       |       |       |        |        |      |         |            |        |            |         |          |        |           |       |         |       |         |         |         |        |       |        |        |      |      |     |     |     |       |       |     |
|                                                       |                             | (3775)     | 3775 | 3780  | 3790  | 3800  | 3810   | 3820   | 3830 | 3848    |            |        |            |         |          |        |           |       |         |       |         |         |         |        |       |        |        |      |      |     |     |     |       |       |     |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | SARS-CoV-2 Reference Genome | (3608)     | T    | AGAGC | AG    | CGAA  | A      | GAAATC | CCA  | G----   | CGGG       | CCCC   | AGG        | AAGT    | TCCAAG   | CCAT   | TGGG      | GTTTC | AGGTGCT | CC    | TCTCTG  |         |         |        |       |        |        |      |      |     |     |     |       |       |     |
|                                                       | Shuffle No.1                | (3645)     | T    | GTCTA | AG    | ACG   | A      | TTAATC | G    | CAAAAG  | ACAG       | TG     | TATT       | AAT     | AAAT     | TAAAC  | CTAC      | TTCT  | G       | GGG   | AAATGCT | AG      | TATCTCT |        |       |        |        |      |      |     |     |     |       |       |     |
|                                                       |                             | Section 53 |      |       |       |       |        |        |      |         |            |        |            |         |          |        |           |       |         |       |         |         |         |        |       |        |        |      |      |     |     |     |       |       |     |
|                                                       |                             | (3849)     | 3849 | 3860  | 3870  | 3880  | 3890   | 3900   | 3910 | 3922    |            |        |            |         |          |        |           |       |         |       |         |         |         |        |       |        |        |      |      |     |     |     |       |       |     |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | SARS-CoV-2 Reference Genome | (3678)     | G    | CTAT  | TC    | CT    | TC     | A      | GAC  | CCGCAG  | CT         | GCT    | ----       | GGAC    | ACAG     | GG     | CA        | CAGAG | CT      | G---  | GTGCCTC | CCGC    | GCCCA   | T----- |       |        |        |      |      |     |     |     |       |       |     |
|                                                       | Shuffle No.1                | (3719)     | A    | CATA  | TT    | CA    | TC     | T      | GAC  | GAA     | TG         | TGG    | AT         | TATAG   | TAC      | TGC    | GT        | CTT   | CATTT   | CT    | TTGC    | GTGCCTC | G       | CAG    | GCCCA | CATAGA |        |      |      |     |     |     |       |       |     |
|                                                       |                             | Section 54 |      |       |       |       |        |        |      |         |            |        |            |         |          |        |           |       |         |       |         |         |         |        |       |        |        |      |      |     |     |     |       |       |     |
|                                                       |                             | (3923)     | 3923 | 3930  | 3940  | 3950  | 3960   | 3970   | 3980 | 3996    |            |        |            |         |          |        |           |       |         |       |         |         |         |        |       |        |        |      |      |     |     |     |       |       |     |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | SARS-CoV-2 Reference Genome | (3740)     | -    | CAC   | TGC   | A     | G      | TG     | CAG  | C       | T          | G      | GGT        | TG      | ACGG     | GAGG   | AA        | GCC   | AAGG    | G     | GAA     | C---    | G       | CC-    | TGGG  | CT     | CAGAGT | AAG  | GA   | GAC | CT  |     |       |       |     |
|                                                       | Shuffle No.1                | (3793)     | A    | CAC   | ATA   | A     | AT     | C      | C    | T       | C          | A      | A          | G       | T        | C      | T         | ACGG  | CC      | CA    | AA      | TTT     | AGAT    | G      | CA    | AAT    | TTTTT  | GC   | AA   | TGT | GT  | TC  | CCTCA | AAGAT | GAC |
|                                                       |                             | Section 55 |      |       |       |       |        |        |      |         |            |        |            |         |          |        |           |       |         |       |         |         |         |        |       |        |        |      |      |     |     |     |       |       |     |
|                                                       |                             | (3997)     | 3997 | 4010  | 4020  | 4030  | 4040   | 4050   | 4060 | 4070    |            |        |            |         |          |        |           |       |         |       |         |         |         |        |       |        |        |      |      |     |     |     |       |       |     |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | SARS-CoV-2 Reference Genome | (3809)     | T    | ----  | G     | CC    | C      | GGG    | GG   | ACAA    | --         | ACG    | GTGT       | CT      | GAA      | GTG    | CAGGGG    | TG    | -       | AAG   | CGG     | TCT     | CA      | G      | TCC   | TCAG   | GGGC   | CTG  | --   |     |     |     |       |       |     |
|                                                       | Shuffle No.1                | (3867)     | T    | CATA  | G     | GT    | CA     | GGG    | TC   | ACAA    | AT         | ACG    | CCAG       | CT      | ATA      | ATG    | GACTCA    | TG    | CA      | CTTCA | TCT     | TC      | G       | ATT    | TCAG  | CTCG   | CTG    | TC   |      |     |     |     |       |       |     |
|                                                       |                             | Section 56 |      |       |       |       |        |        |      |         |            |        |            |         |          |        |           |       |         |       |         |         |         |        |       |        |        |      |      |     |     |     |       |       |     |
|                                                       |                             | (4071)     | 4071 | 4080  | 4090  | 4100  | 4110   | 4120   | 4130 | 4144    |            |        |            |         |          |        |           |       |         |       |         |         |         |        |       |        |        |      |      |     |     |     |       |       |     |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | SARS-CoV-2 Reference Genome | (3874)     | -    | GAA   | AT    | CA    | G      | CT     | CC   | TT      | G          | GGA    | CAC        | G       | GTCT     | TAT    | GT        | G     | TAT     | TGA   | --      | C       | ATT     | CT     | CCCCA | TCC    | AT     | TCCC | T    | TT  | CGG | AAT | G-    |       |     |
|                                                       | Shuffle No.1                | (3941)     | T    | GAA   | ACA   | -     | CT     | AT     | TT   | A       | GGA        | --     | G          | T       | TCT      | CAT    | AT        | TACT  | CA      | AA    | T       | C       | G       | TACT   | TAA   | AG     | TGG    | AT   | GAGG | T   | TT  | TCC | AAT   | CG    |     |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                                                                  |        |            |            |              |          |            |          |            |             |           |                  |
|--------------------------------------------------------------------------------------------------|--------|------------|------------|--------------|----------|------------|----------|------------|-------------|-----------|------------------|
|                                                                                                  |        | Section 57 |            |              |          |            |          |            |             |           |                  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (4145) | 4145       | 4150       | 4160         | 4170     | 4180       | 4190     | 4200       |             |           |                  |
|                                                                                                  | (3944) | ---        | TTTCAGCTGT | TCTGAGAAACA  | CTTTGCAT | ----       | TCC-TGCC | CCCGCCCTGT | GATTTT      | CTCTTT    | GGGCGGCA         |
|                                                                                                  | (4011) | TAA        | TTAGAACAG  | TCA-AGGACACA | TTTGTC   | TATAC      | TCCGTGGC | TTGCAG     | CCGAGA      | --CGAT    | TAAAGCCGAA       |
|                                                                                                  |        | Section 58 |            |              |          |            |          |            |             |           |                  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (4219) | 4219       | 4230       | 4240         | 4250     | 4260       | 4270     | 4280       |             |           |                  |
|                                                                                                  | (4010) | GGC        | AGCCG-GG   | AGAGGCT      | TGGAGG   | CC         | TGGGAGAG | TGGG       | GGCAGGGC    | ACAA      | GGCT-AA          |
|                                                                                                  | (4082) | AAA        | ATTAAAGG   | TGAGGAT      | TTTC-    | CCAGAG     | TTTAC    | TGATGG     | TAGTTG      | ATAATA    | TTAAATTTCT       |
|                                                                                                  |        | Section 59 |            |              |          |            |          |            |             |           |                  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (4293) | 4293       | 4300       | 4310         | 4320     | 4330       | 4340     | 4350       |             |           |                  |
|                                                                                                  | (4082) | CC         | TCC        | TCACTGT      | ACTCAACT | CC         | TAGGCGGG | --CACT     | AAGAGC      | --AGCT    | GCCTTCT          |
|                                                                                                  | (4155) | GAG        | GTGTC      | CTGAAAGT     | TAACTAT  | TAAG       | GTTATTT  | ACAA       | TATCGTT     | ACGAGAAAA | CTTGGAAGATG      |
|                                                                                                  |        | Section 60 |            |              |          |            |          |            |             |           |                  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (4367) | 4367       | 4380       | 4390         | 4400     | 4410       | 4420     | 4430       |             |           |                  |
|                                                                                                  | (4151) | CT         | TGTGACTCAA | -----        | CTCCC    | CTTTCCAG   | GGT----- | GCAGGGAACA | -----       | TTC       | CCCTCT           |
|                                                                                                  | (4229) | CGAAT      | TAAATTGAT  | TGGAAT       | CGCCC    | TATACCAG   | TGCCACAA | GCCGAGATTA | AATAGT      | TTCAT     | TATAGTGGTGT      |
|                                                                                                  |        | Section 61 |            |              |          |            |          |            |             |           |                  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (4441) | 4441       | 4450       | 4460         | 4470     | 4480       | 4490     | 4500       |             |           |                  |
|                                                                                                  | (4208) | CA         | GCTCTGGCC  | ACAGT--      | GGCCTGG  | -----      | ACAGAGT  | -----      | A-----      | GCTGG     | GTC              |
|                                                                                                  | (4303) | CA         | ACTTCGGGT  | AATGTGT      | GGCTT    | TATGATTGAT | ATATAGT  | CTTATA     | ACATCATTAAT | GCTGG     | TAA              |
|                                                                                                  |        | Section 62 |            |              |          |            |          |            |             |           |                  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (4515) | 4515       | 4520       | 4530         | 4540     | 4550       | 4560     | 4570       |             |           |                  |
|                                                                                                  | (4255) | GC         | CCCTGTGG   | ACGAGG       | ACCAGAGC | GCA        | -----    | TCCA-GC    | CTGAG       | CCCA--    | GAGCCTGCAA       |
|                                                                                                  | (4377) | AT         | CCGTTTAT   | AGCGGG       | ATAAAGTA | ATTAA      | CATTGCA  | AAGGAGT    | TCCATGT     | CAATAT    | CTATGTGAGTCTGTAA |
|                                                                                                  |        | Section 63 |            |              |          |            |          |            |             |           |                  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (4589) | 4589       | 4600       | 4610         | 4620     | 4630       | 4640     | 4650       |             |           |                  |
|                                                                                                  | (4320) | C-----     | CCAAAGC    | ---          | AAG      | GCCC       | ATAAA    | CGGAGGC    | TACGGT      | AAGAGG    | --AGCTGTGTGTGC   |
|                                                                                                  | (4451) | C          | GATATGGAC  | CC           | TATGTCTT | AAG        | CAAAA    | AAAA       | TTTCAAA     | TTCGGT    | TATAGTGAAGC      |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                                                                  |        |            |        |        |        |         |         |         |       |          |        |
|--------------------------------------------------------------------------------------------------|--------|------------|--------|--------|--------|---------|---------|---------|-------|----------|--------|
|                                                                                                  |        | Section 64 |        |        |        |         |         |         |       |          |        |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (4663) | 4663       | 4670   | 4680   | 4690   | 4700    | 4710    | 4720    |       |          |        |
|                                                                                                  | (4379) | GGGTC      | CGAG   | GGATG  | ---GGG | GCAG    | GGGCT   | ---TGAG | GGCTT | GCCTG    | ---AGC |
|                                                                                                  | (4525) | ACTTC      | TCAG   | TTATG  | TGTGGG | TTAACTA | CATT    | TCTAG   | CTAG  | ACTATC   | ATGCA  |
|                                                                                                  |        | Section 65 |        |        |        |         |         |         |       |          |        |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (4737) | 4737       | 4750   | 4760   | 4770   | 4780    | 4790    | 4800    |       |          |        |
|                                                                                                  | (4443) | ----T      | CTG    | GCCAG  | TGCT   | CGT-T   | CTG     | CAGGA   | TCC   | TGGAA    | AAGCA  |
|                                                                                                  | (4599) | CTGC       | TCTG   | AGGAT  | AGAGT  | TATG    | CGA     | CGCT    | TCC   | GATAG    | ACTTT  |
|                                                                                                  |        | Section 66 |        |        |        |         |         |         |       |          |        |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (4811) | 4811       | 4820   | 4830   | 4840   | 4850    | 4860    | 4870    |       |          |        |
|                                                                                                  | (4499) | CTG        | CCCT   | CCCTT  | CTGG   | CCCTG   | ---AAGG | GTCAC   | GATG  | CTCTT    | GGCAT  |
|                                                                                                  | (4673) | CGC        | CCCT   | TAAT   | TATCA  | ATGTT   | GAT     | AAGG    | TAGAC | TTCC     | CATGA  |
|                                                                                                  |        | Section 67 |        |        |        |         |         |         |       |          |        |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (4885) | 4885       | 4890   | 4900   | 4910   | 4920    | 4930    | 4940    |       |          |        |
|                                                                                                  | (4570) | CG-T       | CGAGG  | CACTG  | CTT    | CACG    | GGCTG   | CGGG    | GTTCC | CAGC     | AGG    |
|                                                                                                  | (4747) | CCAT       | TCAAT  | CTGT   | CAAT   | TACG    | TGCAAT  | GAA     | GTTGT | CTAT     | AC     |
|                                                                                                  |        | Section 68 |        |        |        |         |         |         |       |          |        |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (4959) | 4959       | 4970   | 4980   | 4990   | 5000    | 5010    | 5020    |       |          |        |
|                                                                                                  | (4643) | GTGGA      | TGCG   | CAAGGG | GCAGAG | CAGCTG  | GTGCG   | -GACCC  | TGGTG | -AGTGGGT | GCAC   |
|                                                                                                  | (4820) | GATTT      | TGGT   | AAATCC | G-ATTC | CTGTG   | AGGCG   | AGTTAA  | TGAC  | GTAC     | TGGGT  |
|                                                                                                  |        | Section 69 |        |        |        |         |         |         |       |          |        |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (5033) | 5033       | 5040   | 5050   | 5060   | 5070    | 5080    | 5090    |       |          |        |
|                                                                                                  | (4714) | TCT        | CCATT  | -TCAC  | CTCAT  | ACTTAA  | CCAA    | ACCCCT  | CTCA  | AAAAG    | TATG   |
|                                                                                                  | (4893) | ATA        | CCAATT | CGTCAC | GCAG   | TTTCTG  | CGGAC   | AAATGT  | TTT   | TAAAT    | TGAG   |
|                                                                                                  |        | Section 70 |        |        |        |         |         |         |       |          |        |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (5107) | 5107       | 5120   | 5130   | 5140   | 5150    | 5160    | 5170    |       |          |        |
|                                                                                                  | (4780) | C          | CAAA   | ACCT   | TGGGG  | ACAGG   | CCAG    | GAA     | TC    | TGCATT   | CTTAA  |
|                                                                                                  | (4967) | A          | CAAT   | ATCT   | CGATAC | ACTG    | ACTGT   | GAGG    | -TCG  | GTTCC    | CTTGT  |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                                                                   |        |                      |                   |                         |                   |               |               |         |           |            |            |         |               |              |            |         |        |        |       |         |
|---------------------------------------------------------------------------------------------------|--------|----------------------|-------------------|-------------------------|-------------------|---------------|---------------|---------|-----------|------------|------------|---------|---------------|--------------|------------|---------|--------|--------|-------|---------|
|                                                                                                   |        |                      | Section 71        |                         |                   |               |               |         |           |            |            |         |               |              |            |         |        |        |       |         |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (5181) | 5181                 | 5190              | 5200                    | 5210              | 5220          | 5230          | 5240    | 5254      |            |            |         |               |              |            |         |        |        |       |         |
|                                                                                                   | (4853) | CTTTCACTCTGGTGCAGCA  | GTGTGGGGGAGAAAGG  | GCTGGGACTGCGGGGGAGCGGTG | AGCACAA           |               |               |         |           |            |            |         |               |              |            |         |        |        |       |         |
|                                                                                                   | (5040) | GTAATTAATAATTTAATTCA | AAAAGCAAGTATTCGGG | AGAAAGC                 | GCTGTGCATTTTGGTCT | AATAAAAGAACAA |               |         |           |            |            |         |               |              |            |         |        |        |       |         |
|                                                                                                   |        |                      |                   |                         |                   |               |               |         |           |            |            |         |               |              |            |         |        |        |       |         |
|                                                                                                   |        |                      | Section 72        |                         |                   |               |               |         |           |            |            |         |               |              |            |         |        |        |       |         |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (5255) | 5255                 | 5260              | 5270                    | 5280              | 5290          | 5300          | 5310    | 5328      |            |            |         |               |              |            |         |        |        |       |         |
|                                                                                                   | (4926) | GAGGCCT----          | TCTC---           | TGC                     | CAACTGT--         | CCCA--        | AAGCTCAG      | GGA     | GTGG--    | C          | ACTGAGATGG | CCCTGGG | CA            |              |            |         |        |        |       |         |
|                                                                                                   | (5114) | AGACCCTAGGATGTTTCAT  | TGCTTATTTTTGACT   | CCATT                   | AAGTACG           | GCTG          | GTGCTTAATCTAA | ACTTAA  | GCTATC-   |            |            |         |               |              |            |         |        |        |       |         |
|                                                                                                   |        |                      |                   |                         |                   |               |               |         |           |            |            |         |               |              |            |         |        |        |       |         |
|                                                                                                   |        |                      | Section 73        |                         |                   |               |               |         |           |            |            |         |               |              |            |         |        |        |       |         |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (5329) | 5329                 | 5340              | 5350                    | 5360              | 5370          | 5380          | 5390    | 5402      |            |            |         |               |              |            |         |        |        |       |         |
|                                                                                                   | (4987) | GACGTGGTGG           | CAGCGGA           | TCC                     | TGC               | -----         | GA            | CTGCGAG | TGGC      | T          | CAGCAGCAG  | G       | AAGATGGGTGG-- |              |            |         |        |        |       |         |
|                                                                                                   | (5187) | GAGAACTTTT           | CAATAAA           | AAA                     | TGC               | CTAAT         | GAGTTTC       | AGGAAA  | TCA       | TACAAATTTA | AATAT      | GTGTC   | TAGGTGAG      |              |            |         |        |        |       |         |
|                                                                                                   |        |                      |                   |                         |                   |               |               |         |           |            |            |         |               |              |            |         |        |        |       |         |
|                                                                                                   |        |                      | Section 74        |                         |                   |               |               |         |           |            |            |         |               |              |            |         |        |        |       |         |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (5403) | 5403                 | 5410              | 5420                    | 5430              | 5440          | 5450          | 5460    | 5476      |            |            |         |               |              |            |         |        |        |       |         |
|                                                                                                   | (5054) | -GT                  | CCTTTC            | C                       | CAGGT             | -----         | A             | CTGCG   | CCT-      | CT         | TCCCT      | GC--    | AT            | TCACTCAGCCAG | CCTTCC---- | AGAA    |        |        |       |         |
|                                                                                                   | (5261) | AGACCGTGT            | CATGTT            | TAAACGATA               | AATGCT            | CAACGTGT      | CTAACTG       | AGTACA  | ATAACGTAT | CCTC       | CTGCTA     | ATA     |               |              |            |         |        |        |       |         |
|                                                                                                   |        |                      |                   |                         |                   |               |               |         |           |            |            |         |               |              |            |         |        |        |       |         |
|                                                                                                   |        |                      | Section 75        |                         |                   |               |               |         |           |            |            |         |               |              |            |         |        |        |       |         |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (5477) | 5477                 | 5490              | 5500                    | 5510              | 5520          | 5530          | 5540    | 5550      |            |            |         |               |              |            |         |        |        |       |         |
|                                                                                                   | (5110) | GTCTGTG              | CCACAGCC-         | AGG                     | CAGCGTGA          | GC            | TTTC--        | CCT     | GCT--     | TGC        | AGCCCCG    | GGGC    | CCC           | TT           | CGTTT      | CAG     |        |        |       |         |
|                                                                                                   | (5335) | GACTCCC              | CCAAG             | TAT                     | ACT               | CAGTTAA       | AGA           | CTTGT   | TACA      | CCTAT      | TTAG       | TGC     | AAAAGTA       | GGGC         | TGT        | TTAGATA | CAG    |        |       |         |
|                                                                                                   |        |                      |                   |                         |                   |               |               |         |           |            |            |         |               |              |            |         |        |        |       |         |
|                                                                                                   |        |                      | Section 76        |                         |                   |               |               |         |           |            |            |         |               |              |            |         |        |        |       |         |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (5551) | 5551                 | 5560              | 5570                    | 5580              | 5590          | 5600          | 5610    | 5624      |            |            |         |               |              |            |         |        |        |       |         |
|                                                                                                   | (5178) | GGG                  | AGGG--            | GG                      | TCAGTTCC-         | ATT           | ACAG          | AACACAC | AGGC      | TG         | GATGCTGGAG | CCT     | TGCTTT        | GATT         | TGTGGC     | CCCA    |        |        |       |         |
|                                                                                                   | (5409) | TAT                  | AGAAAA            | GT                      | TCG               | GAT           | TAAT          | ATT     | CTAG      | TGTTTTG    | ATAG       | TGATA   | GAATA         | AGG          | CGAT-CT    | ATAATT  | ATCACA | CATA   |       |         |
|                                                                                                   |        |                      |                   |                         |                   |               |               |         |           |            |            |         |               |              |            |         |        |        |       |         |
|                                                                                                   |        |                      | Section 77        |                         |                   |               |               |         |           |            |            |         |               |              |            |         |        |        |       |         |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (5625) | 5625                 | 5630              | 5640                    | 5650              | 5660          | 5670          | 5680    | 5698      |            |            |         |               |              |            |         |        |        |       |         |
|                                                                                                   | (5249) | ---                  | G                 | CTCAGGC                 | CAGG--            | CCCA          | CCCGGT        | CCA     | TCAGT     | TT         | GCGA       | AGA     | AGGTG         | TGGC         | ATGAGG     | CAT     | G      | CTGCC  | ACTCA |         |
|                                                                                                   | (5482) | AAT                  | GGT               | GAC                     | GC                | GTC           | TA            | CCCA    | G         | CGT        | GTAG       | ATA     | AAATTA        | ACC          | ACATTC     | CCTT    | TAA    | ATAT-- | CTAG  | ACTAGAA |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                                                                  |        |            |        |        |          |       |          |          |       |       |         |
|--------------------------------------------------------------------------------------------------|--------|------------|--------|--------|----------|-------|----------|----------|-------|-------|---------|
|                                                                                                  |        | Section 78 |        |        |          |       |          |          |       |       |         |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (5699) | 5699       | 5710   | 5720   | 5730     | 5740  | 5750     | 5760     | 5772  |       |         |
|                                                                                                  | (5318) | CACTAGCC   | CA     | TGGAG  | GGCCTGGG | TCC   | TGAGCGCC | CCCTCCC  | TCATT | TGCT  | TGCTCTG |
|                                                                                                  | (5554) | CA-TAGCC   | AT     | TGGCG  | AAAACCTT | TAT   | CAACGAT  | CAATGATA | TAACT | TAT   | TAAAGGA |
|                                                                                                  |        | Section 79 |        |        |          |       |          |          |       |       |         |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (5773) | 5773       | 5780   | 5790   | 5800     | 5810  | 5820     | 5830     | 5846  |       |         |
|                                                                                                  | (5391) | CTC        | ACCATC | AGAT   | CT       | ATTCT | GAGCT    | TGTGC    | ATT   | TGGCC | TAGGCA  |
|                                                                                                  | (5627) | -TC        | TGTTAA | ATG    | TGG      | ATTCT | GGC      | GAG      | TAGCA | AAAT  | AGCAT   |
|                                                                                                  |        | Section 80 |        |        |          |       |          |          |       |       |         |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (5847) | 5847       | 5860   | 5870   | 5880     | 5890  | 5900     | 5910     | 5920  |       |         |
|                                                                                                  | (5465) | GGGCCC     | TGGG   | GA     | CAAA     | AAG   | GA       | GCTG     | GGTAC | AG    | GGG     |
|                                                                                                  | (5700) | ATCAAA     | TCT    | GCA    | AGC      | AAG   | AT       | GCTG     | ----- | AC    | GTC     |
|                                                                                                  |        | Section 81 |        |        |          |       |          |          |       |       |         |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (5921) | 5921       | 5930   | 5940   | 5950     | 5960  | 5970     | 5980     | 5994  |       |         |
|                                                                                                  | (5539) | CAACA      | ATAG   | CAT    | TCCTC    | TCC   | TCC      | TGG      | TTC   | CAG   | GCCTT   |
|                                                                                                  | (5766) | CAACA      | GTT    | GGC    | TGATGT   | TAA   | TCC      | AG-      | TTC   | TAG   | ATTAA   |
|                                                                                                  |        | Section 82 |        |        |          |       |          |          |       |       |         |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (5995) | 5995       | 6000   | 6010   | 6020     | 6030  | 6040     | 6050     | 6068  |       |         |
|                                                                                                  | (5603) | GCCAG      | GAG    | C      | CCAA     | G     | GAG      | AGGAG    | CTG   | C     | CA--    |
|                                                                                                  | (5839) | GGTCT      | GAA    | C      | ATTT     | G     | TCA      | A        | TACT  | CT    | TCA     |
|                                                                                                  |        | Section 83 |        |        |          |       |          |          |       |       |         |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (6069) | 6069       | 6080   | 6090   | 6100     | 6110  | 6120     | 6130     | 6142  |       |         |
|                                                                                                  | (5670) | C          | CGA    | AG     | T        | GGA   | C        | AGGA     | AG    | C     | CGCC    |
|                                                                                                  | (5912) | A          | CGG    | T      | AT       | T     | CCT      | C        | GCTC  | A     | AC      |
|                                                                                                  |        | Section 84 |        |        |          |       |          |          |       |       |         |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (6143) | 6143       | 6150   | 6160   | 6170     | 6180  | 6190     | 6200     | 6216  |       |         |
|                                                                                                  | (5740) | G          | CAG    | C----- | T        | G     | T        | G        | A     | C     | T       |
|                                                                                                  | (5986) | G          | TAG    | T      | A        | T     | A        | C        | T     | G     | T       |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                      |        |                                                                              |      |      |      |      |      |      |      |      |  |
|------------------------------------------------------|--------|------------------------------------------------------------------------------|------|------|------|------|------|------|------|------|--|
|                                                      |        | Section 85                                                                   |      |      |      |      |      |      |      |      |  |
|                                                      |        | (6217)                                                                       | 6217 | 6230 | 6240 | 6250 | 6260 | 6270 | 6280 | 6290 |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (5800) | GGAACCATGGC---CACACATCCAGGGAGTGATGACAGAGGGGACAGCTTGAAGAGCTCTGAAGGACAAATAA    |      |      |      |      |      |      |      |      |  |
|                                                      | (6060) | GGAATTCTTGGAAACAAATTTATGCA-TGATCACAAAGTAATTACTGAATGCATTAAGCATGATCATGAT       |      |      |      |      |      |      |      |      |  |
|                                                      |        | Section 86                                                                   |      |      |      |      |      |      |      |      |  |
|                                                      |        | (6291)                                                                       | 6291 | 6300 | 6310 | 6320 | 6330 | 6340 | 6350 | 6364 |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (5871) | ACCCACTCCTCAGTCCTAGCTGCT--GCTTTCAGTCTCTC-CTAGCGGCTGCCCCTCTGCCCAGGCCAGTGAG    |      |      |      |      |      |      |      |      |  |
|                                                      | (6133) | AAGTTAAAGTCACTAATTGAGGAATAAGCATATAAGCACTCACTCAACGTTACTGCTTTGTCTGTATAGATTG    |      |      |      |      |      |      |      |      |  |
|                                                      |        | Section 87                                                                   |      |      |      |      |      |      |      |      |  |
|                                                      |        | (6365)                                                                       | 6365 | 6370 | 6380 | 6390 | 6400 | 6410 | 6420 | 6438 |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (5941) | GCCAGGAAGGGAGTAAAGAGGACATCCCAAAATTGCGTCCACCCCTTGGCCATCAGGCTGCTCTTCCACTACA    |      |      |      |      |      |      |      |      |  |
|                                                      | (6207) | ---AAAAACAGTATAAAGAGTGATTTCTAG--TTCAAGCAACG---TGGGCAATTTGCATCACTCGTATGTT     |      |      |      |      |      |      |      |      |  |
|                                                      |        | Section 88                                                                   |      |      |      |      |      |      |      |      |  |
|                                                      |        | (6439)                                                                       | 6439 | 6450 | 6460 | 6470 | 6480 | 6490 | 6500 | 6512 |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (6015) | CGAAACAGCCCATCTGCACCTGCCAGTCACTGCCCCAGGCCCTGGGGCTTGAGGAGTGAAGTCTGTTGGGAGCCAG |      |      |      |      |      |      |      |      |  |
|                                                      | (6273) | TGAAACAGAGGTGGCCGCTGTG---GTT-CGCGTTCAA---CTGTTAGTTACAGG-GAGAGAAAGTCTTCGAC    |      |      |      |      |      |      |      |      |  |
|                                                      |        | Section 89                                                                   |      |      |      |      |      |      |      |      |  |
|                                                      |        | (6513)                                                                       | 6513 | 6520 | 6530 | 6540 | 6550 | 6560 | 6570 | 6586 |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (6089) | GCCAGGCAGATAACCTCTGGGACAGGACGAGGGGATGAGGAAGGCAGCTGGCAGGAC---AAGGGCCTACCTGA   |      |      |      |      |      |      |      |      |  |
|                                                      | (6339) | TATTATCGGGAATGTGCATGGGTATCGGTAAATTTTTCGTAATCTTTAGCACGACTTCAAGTTGAAATGAGA     |      |      |      |      |      |      |      |      |  |
|                                                      |        | Section 90                                                                   |      |      |      |      |      |      |      |      |  |
|                                                      |        | (6587)                                                                       | 6587 | 6600 | 6610 | 6620 | 6630 | 6640 | 6650 | 6660 |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (6160) | AAAATAC-ACCAAGGAAGCTGGGCTGCTGCACAGGCCCAAGCAGATCTGGGGCCCTGTGCTGCAAAATCT---C   |      |      |      |      |      |      |      |      |  |
|                                                      | (6413) | AAAGTGTACTAATAATTTCGACTAGTGTGTAAATATGGCT-ATATTTCCCGCCAGTACTTGTTGATTATTATTA   |      |      |      |      |      |      |      |      |  |
|                                                      |        | Section 91                                                                   |      |      |      |      |      |      |      |      |  |
|                                                      |        | (6661)                                                                       | 6661 | 6670 | 6680 | 6690 | 6700 | 6710 | 6720 | 6734 |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (6230) | ATCT--TAGCCTCTGACAGGGAACGGGGCAGCATCAGGCCTCCACAGCCAGGCAAAAGGGGAAGGCACGAGCC    |      |      |      |      |      |      |      |      |  |
|                                                      | (6486) | ATGTAGTGCCTATCATACTTACGAGTCTTTTTTTAATTATCGTGTGGAGAATACTTGTAAGGCGTTCCTCCGTC   |      |      |      |      |      |      |      |      |  |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                                                                  |        |            |      |      |      |      |      |      |         |      |      |
|--------------------------------------------------------------------------------------------------|--------|------------|------|------|------|------|------|------|---------|------|------|
|                                                                                                  |        | Section 92 |      |      |      |      |      |      |         |      |      |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (6735) | 6735       | 6740 | 6750 | 6760 | 6770 | 6780 | 6790 | 6808    |      |      |
|                                                                                                  | (6302) | CCACCAAGCA | CAA  | GGG  | TT   | CAG  | AC   | TG   | CCTTCAA | CCC  | TAA  |
|                                                                                                  | (6560) | GGTTACTTTT | CAA  | AAT  | TT   | TTG  | --   | TG   | ACTTCAA | GAG  | TAA  |
|                                                                                                  |        | Section 93 |      |      |      |      |      |      |         |      |      |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (6809) | 6809       | 6820 | 6830 | 6840 | 6850 | 6860 | 6870 | 6882    |      |      |
|                                                                                                  | (6368) | AT         | AGA  | CA   | ACT  | G    | TGC  | CAA  | AA      | GCA  | G    |
|                                                                                                  | (6632) | GA         | AGA  | TT   | AA   | G    | GCA  | CAA  | T       | AA   | TGG  |
|                                                                                                  |        | Section 94 |      |      |      |      |      |      |         |      |      |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (6883) | 6883       | 6890 | 6900 | 6910 | 6920 | 6930 | 6940 | 6956    |      |      |
|                                                                                                  | (6440) | CG         | -    | GCT  | AAG  | TGG  | GC   | AG   | GG      | CAG  | T    |
|                                                                                                  | (6706) | AG         | T    | GCT  | CG   | A    | TT   | CG   | A       | GC   | G    |
|                                                                                                  |        | Section 95 |      |      |      |      |      |      |         |      |      |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (6957) | 6957       | 6970 | 6980 | 6990 | 7000 | 7010 | 7020 | 7030    |      |      |
|                                                                                                  | (6507) | AC         | C    | T    | C    | TAG  | GAG  | G    | TGG     | A    | AGGG |
|                                                                                                  | (6780) | AC         | AT   | -    | TAG  | ACT  | G    | TT   | A       | AGGG | A    |
|                                                                                                  |        | Section 96 |      |      |      |      |      |      |         |      |      |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (7031) | 7031       | 7040 | 7050 | 7060 | 7070 | 7080 | 7090 | 7104    |      |      |
|                                                                                                  | (6578) | T          | G    | C    | G    | T    | T    | T    | G       | C    | T    |
|                                                                                                  | (6851) | T          | T    | G    | A    | C    | T    | A    | T       | C    | G    |
|                                                                                                  |        | Section 97 |      |      |      |      |      |      |         |      |      |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (7105) | 7105       | 7110 | 7120 | 7130 | 7140 | 7150 | 7160 | 7178    |      |      |
|                                                                                                  | (6651) | CCT        | TG   | GT   | T    | CG   | AGG  | -    | G       | TTA  | GT   |
|                                                                                                  | (6915) | CCT        | G    | A    | G    | T    | C    | G    | AGG     | C    | A    |
|                                                                                                  |        | Section 98 |      |      |      |      |      |      |         |      |      |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (7179) | 7179       | 7190 | 7200 | 7210 | 7220 | 7230 | 7240 | 7252    |      |      |
|                                                                                                  | (6722) | C          | T    | C    | T    | G    | C    | A    | G       | G    | A    |
|                                                                                                  | (6988) | A          | T    | C    | C    | T    | A    | T    | A       | T    | A    |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                      |        |                                                                               |      |      |      |      |      |      |      |      |  |
|------------------------------------------------------|--------|-------------------------------------------------------------------------------|------|------|------|------|------|------|------|------|--|
|                                                      |        | Section 99                                                                    |      |      |      |      |      |      |      |      |  |
|                                                      |        | (7253)                                                                        | 7253 | 7260 | 7270 | 7280 | 7290 | 7300 | 7310 | 7326 |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (6788) | GTTCCCATGTGGGCCGACTCAGGTCCAGGAAGAGCCTGGAAGCCTCACCTCCAGTCTAGCTGCCCATGTGTCAGGT  |      |      |      |      |      |      |      |      |  |
|                                                      | (7059) | TTTCGCATGTAGATGATAATGCTGACCCCTTTAAGTAGGGTGCAATTTCAATGAA-TCTTAATATCCT-----AGAT |      |      |      |      |      |      |      |      |  |
|                                                      |        | Section 100                                                                   |      |      |      |      |      |      |      |      |  |
|                                                      |        | (7327)                                                                        | 7327 | 7340 | 7350 | 7360 | 7370 | 7380 | 7390 | 7400 |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (6862) | GGGGGAGTGGAGGCCGGGTGGGAGAGACACGAAG---GAGAGTGGAGTTCCCAAGAGAGAGCAGCACTGTGGAG    |      |      |      |      |      |      |      |      |  |
|                                                      | (7128) | GAGAAACAACAGGT-GCTGTGGTGCACATACGAAGTTTGTGTTTGGACTT---ATGCCATCTAGAAAGCTTTAG    |      |      |      |      |      |      |      |      |  |
|                                                      |        | Section 101                                                                   |      |      |      |      |      |      |      |      |  |
|                                                      |        | (7401)                                                                        | 7401 | 7410 | 7420 | 7430 | 7440 | 7450 | 7460 | 7474 |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (6933) | GAGGAAGGCGGACAGGAGTGGCTCCAAACGCAAGGCGTCAGGACGCAGGGTCA--TGAGAGCTCCGTTTCTCTC    |      |      |      |      |      |      |      |      |  |
|                                                      | (7198) | CAACAACATCGGTTT-----TACCTGAATAATTATATCGGTGCTTC-CAGGGAGAAATTTGAGCAATACTCTCTCGA |      |      |      |      |      |      |      |      |  |
|                                                      |        | Section 102                                                                   |      |      |      |      |      |      |      |      |  |
|                                                      |        | (7475)                                                                        | 7475 | 7480 | 7490 | 7500 | 7510 | 7520 | 7530 | 7548 |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (7005) | GCATTCTGGGTGGGCCGTGTTGAGAA-GCTCCAAATGTGTCTTCCA---CACCTGCCAGAGGCAGTTGTCCAGTG   |      |      |      |      |      |      |      |      |  |
|                                                      | (7266) | GCGG---GTATAAGGGTGTTAGGCCGTACCGATGGGGCTAAGGAATACAACTGAATTCTGATTTTACAAT        |      |      |      |      |      |      |      |      |  |
|                                                      |        | Section 103                                                                   |      |      |      |      |      |      |      |      |  |
|                                                      |        | (7549)                                                                        | 7549 | 7560 | 7570 | 7580 | 7590 | 7600 | 7610 | 7622 |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (7075) | GGAAGTCAATTGTCACACAGGT----TGACAGGAAGTAGTTGTCTGGGATGTAC-TGGATGATGGTGCGGGACG    |      |      |      |      |      |      |      |      |  |
|                                                      | (7337) | TGGACGTTTTCACACAGGACTGATAACAGAAATATCGGCAGCTGAGCGACTATTCAAACATAATTCTATT        |      |      |      |      |      |      |      |      |  |
|                                                      |        | Section 104                                                                   |      |      |      |      |      |      |      |      |  |
|                                                      |        | (7623)                                                                        | 7623 | 7630 | 7640 | 7650 | 7660 | 7670 | 7680 | 7696 |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (7144) | GGGACTCCTCCTCATACAACGCTTCCCAACCGCTCAATC-CACAGGGCAAGGCCCTCGT--CCTACACACACATA   |      |      |      |      |      |      |      |      |  |
|                                                      | (7411) | GGTATAGGGATAGAGAGGCTAGCATCAGAGTTTATTGTGCTTGCTAAAATGTTTGTTCAGACAGTCTCATA       |      |      |      |      |      |      |      |      |  |
|                                                      |        | Section 105                                                                   |      |      |      |      |      |      |      |      |  |
|                                                      |        | (7697)                                                                        | 7697 | 7710 | 7720 | 7730 | 7740 | 7750 | 7760 | 7770 |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (7215) | CCCCGACACAACGACACATGTCAACACACAGAGGCAGAATAACAGGCTCTCCAAGGGCTCTGCTCAAC          |      |      |      |      |      |      |      |      |  |
|                                                      | (7485) | TTGAGGCT-ACA-GCGAATCTCCTCACTAACGTCTAGTTATTCATTATCAGCCCAATTATAAATTAGTAGTTC     |      |      |      |      |      |      |      |      |  |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                                                                   |        |             |          |           |               |           |          |            |           |          |                    |             |
|---------------------------------------------------------------------------------------------------|--------|-------------|----------|-----------|---------------|-----------|----------|------------|-----------|----------|--------------------|-------------|
|                                                                                                   |        | Section 106 |          |           |               |           |          |            |           |          |                    |             |
|                                                                                                   |        | (7771)      | 7771     | 7780      | 7790          | 7800      | 7810     | 7820       | 7830      | 7844     |                    |             |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (7289) | AG          | GACATTTT | --C       | CGGAATAGAACAA | GGCCC     | ACTG     | CCAGTATCAC | TTCCCA    | CCCCTG   | CCCCAGAAATAAACACCC |             |
|                                                                                                   | (7557) | TT          | GACTTTT  | AAGCAT    | GCATA-ATCAA   | TAT--     | AGTT     | CCAGTAGA-- | TTGGAG    | CTGTATAG | ATTGATTTATATGA     |             |
|                                                                                                   |        |             |          |           |               |           |          |            |           |          |                    |             |
|                                                                                                   |        | Section 107 |          |           |               |           |          |            |           |          |                    |             |
|                                                                                                   |        | (7845)      | 7845     | 7850      | 7860          | 7870      | 7880     | 7890       | 7900      | 7918     |                    |             |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (7361) | TGC         | ATCAGCAG | TGACATGG  | GTGAGT        | CAGA--    | GCTGGG-  | TGTGC      | CCTGAAGGC | TGGGTCC  | AG---TGTGGCCT      |             |
|                                                                                                   | (7626) | CTG         | ATAA--   | ATTGAA    | ATGGTAC       | AGACTCA   | ATG      | GCTACAA    | TAA       | GC       | TAGCAAAAT          | TCCGTAA     |
|                                                                                                   |        |             |          |           |               |           |          |            |           |          |                    |             |
|                                                                                                   |        | Section 108 |          |           |               |           |          |            |           |          |                    |             |
|                                                                                                   |        | (7919)      | 7919     | 7930      | 7940          | 7950      | 7960     | 7970       | 7980      | 7992     |                    |             |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (7427) | T           | CAGCAC   | ACGCTTGGG | AC            | TTGGT     | CCCAAT   | CCCTC      | CCCA--    | C        | GGT                |             |
|                                                                                                   | (7698) | T           | AA       | AATTAT    | CAGAAAA       | ACAC      | GGTATAT  | AG         | CA        | CGG      | CAGAAAT            | GGCTCTACTTA |
|                                                                                                   |        |             |          |           |               |           |          |            |           |          |                    |             |
|                                                                                                   |        | Section 109 |          |           |               |           |          |            |           |          |                    |             |
|                                                                                                   |        | (7993)      | 7993     | 8000      | 8010          | 8020      | 8030     | 8040       | 8050      | 8066     |                    |             |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (7498) | CGG         | CTC      | CTT---    | TACCTT        | CCAGAACAT | TGAAG    | CTGA       | CGGAT     | TCC-     | ACTAC              |             |
|                                                                                                   | (7772) | AAA         | CTC      | G         | TTAGTGG       | CACA      | CCGGTAGG | TAACT      | CGGAT     | GTGA     | AAAT               | AAGAC       |
|                                                                                                   |        |             |          |           |               |           |          |            |           |          |                    |             |
|                                                                                                   |        | Section 110 |          |           |               |           |          |            |           |          |                    |             |
|                                                                                                   |        | (8067)      | 8067     | 8080      | 8090          | 8100      | 8110     | 8120       | 8130      | 8140     |                    |             |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (7568) | G           | GG       | AAGAT     | TGCC          | CAAGT     | GACAGCA- | TT         | C         | GGCTG    | CAGTT              |             |
|                                                                                                   | (7846) | G--         | AAG      | CTGTG     | CAAC          | GTAT      | AGCAGT   | AC         | CT        | CTGT     | ATCC               |             |
|                                                                                                   |        |             |          |           |               |           |          |            |           |          |                    |             |
|                                                                                                   |        | Section 111 |          |           |               |           |          |            |           |          |                    |             |
|                                                                                                   |        | (8141)      | 8141     | 8150      | 8160          | 8170      | 8180     | 8190       | 8200      | 8214     |                    |             |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (7637) | GAT         | TGTGGGG  | TGGGG---  | GTAA----      | G         | ACCTGGG  | CCAA--     | GAA       | CAACT    | TGGA-              |             |
|                                                                                                   | (7918) | TTT         | CTAGTC   | TGA       | AACTTA        | GTAA      | TGATA    | ACCAGAG    | TTT       | ACG      | GAA                |             |
|                                                                                                   |        |             |          |           |               |           |          |            |           |          |                    |             |
|                                                                                                   |        | Section 112 |          |           |               |           |          |            |           |          |                    |             |
|                                                                                                   |        | (8215)      | 8215     | 8220      | 8230          | 8240      | 8250     | 8260       | 8270      | 8288     |                    |             |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (7700) | -           | GACTCAAT | TGAG      | GCTGTCTGG-    | GCT       | CAAT     | ACC        | CTCTG     | CC       | TGCG               |             |
|                                                                                                   | (7992) | A           | GATTTTT  | TCAAG     | GCTTGT        | TAGAG     | TTAG     | AAAA       | CTAAT     | CCGG     | GC                 |             |
|                                                                                                   |        |             |          |           |               |           |          |            |           |          |                    |             |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                                                                   |        |             |          |          |          |         |            |           |           |               |                                |
|---------------------------------------------------------------------------------------------------|--------|-------------|----------|----------|----------|---------|------------|-----------|-----------|---------------|--------------------------------|
|                                                                                                   |        | Section 113 |          |          |          |         |            |           |           |               |                                |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (8289) | 8289        | 8300     | 8310     | 8320     | 8330    | 8340       | 8350      | 8362      |               |                                |
|                                                                                                   | (7772) | CTCCAC      | TCCCC    | TC       | TCCC     | TGTGC   | CTCC       | GCTCC     | TGGC-CTC  | CTCTGCC       | TGCATCTGTGAATGATATCTCTCCCCAC   |
|                                                                                                   | (8066) | CAC         | TGTTATA  | TC       | CAGT     | TATAT   | CTAG       | GTGG      | TCGAACTC  | AGTAGA        | TTAAACGAATATTTTGTATGTTGAA      |
|                                                                                                   |        | Section 114 |          |          |          |         |            |           |           |               |                                |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (8363) | 8363        | 8370     | 8380     | 8390     | 8400    | 8410       | 8420      | 8436      |               |                                |
|                                                                                                   | (7845) | ACAAGCC     | TGAACCT  | AGAGGCG  | TC--CT   | GGCCAC  | TTCC       | CTCCTCCT  | TGAGCACCC | CCTGCTC       | ACTCTCTGAT                     |
|                                                                                                   | (8140) | AGACAGT     | TTGATTGA | AAAGTAT  | TC       | TGCTACA | CAGTTAC    | AGTTTGAG  | CAGTAA-AC | TACATTTGA     | AAACAATTAT                     |
|                                                                                                   |        | Section 115 |          |          |          |         |            |           |           |               |                                |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (8437) | 8437        | 8450     | 8460     | 8470     | 8480    | 8490       | 8500      | 8510      |               |                                |
|                                                                                                   | (7917) | CCAT        | TCCCTCTT | GTC      | CTAGCC   | CACCTCC | AGG-----A- | GTGTGT    | TTGGCT    | TGGGTC        | ACTCCAGGGGTCTCTTC              |
|                                                                                                   | (8213) | TTTGT       | TACC-CTT | TC       | CTAGT    | TG      | CATGTATG   | TCA       | TTC       | CAAGG         | TTGGAGTACGGGATTTAGTCA          |
|                                                                                                   |        | Section 116 |          |          |          |         |            |           |           |               |                                |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (8511) | 8511        | 8520     | 8530     | 8540     | 8550    | 8560       | 8570      | 8584      |               |                                |
|                                                                                                   | (7983) | ACTG        | GCCT--C  | CCCGG    | CTCTA    | GCCGTCC | CCAA       | TCTCTC    | T         | CATCCGTATGAC  | TATCCACTGT--GATTTGCC           |
|                                                                                                   | (8286) | AGTG        | TTTTT    | TGTA     | CCCG     | TCC     | GGCACTTAT  | TCAA      | ATTTTAAAT | TGCA          | CCATTGTTTATCTCGCAAGCAATCGAGTCT |
|                                                                                                   |        | Section 117 |          |          |          |         |            |           |           |               |                                |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (8585) | 8585        | 8590     | 8600     | 8610     | 8620    | 8630       | 8640      | 8658      |               |                                |
|                                                                                                   | (8053) | AA          | TAAAGC   | AGGA     | ACCAAG   | CCAC    | CTGCTG     | GAGAAAGGC | TTCTC     | TTGCATT--GAGG | GGA                            |
|                                                                                                   | (8360) | GT          | TTTCCT   | AAGATTGA | -GTTATCC | -AGTG   | AAGATA     | ATAAAT    | TATCT     | TTGC          | TTATCGAAGCGAAAC                |
|                                                                                                   |        | Section 118 |          |          |          |         |            |           |           |               |                                |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (8659) | 8659        | 8670     | 8680     | 8690     | 8700    | 8710       | 8720      | 8732      |               |                                |
|                                                                                                   | (8124) | CAGCAGG     | ACAA     | CATGATC  | CTGCGGG  | CTTG    | GCCCC      | CTGTAA    | CACTCCCG  | CTCC          | TCTGCTCATGTTCC                 |
|                                                                                                   | (8432) | TATCT--     | ATCG     | CAATGATC | ACA-CAGG | ATTG    | TGGGGG     | CTAACGT   | CAC       | TTGACTGGTC    | ATAGACGTTTAAACCG               |
|                                                                                                   |        | Section 119 |          |          |          |         |            |           |           |               |                                |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (8733) | 8733        | 8740     | 8750     | 8760     | 8770    | 8780       | 8790      | 8806      |               |                                |
|                                                                                                   | (8198) | T           | TTCC     | CCAGATGG | TGCA     | AGCTC   | ACTG       | CTG       | CC        | TGTCC         | TCTGCCC                        |
|                                                                                                   | (8503) | A           | TTAC--   | AGTTGG   | A--ATT   | T       | TTTTTT     | TTCTAT    | ACC       | CCGTG         | TATATTTTG---                   |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                                                                   |        |      |      |      |      |    |      |      |     |      |      |     |      |      |             |      |      |      |      |      |      |      |     |      |             |     |     |      |     |     |    |       |      |      |    |     |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------------------------------------------------------------------------------|--------|------|------|------|------|----|------|------|-----|------|------|-----|------|------|-------------|------|------|------|------|------|------|------|-----|------|-------------|-----|-----|------|-----|-----|----|-------|------|------|----|-----|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                                                                                   |        |      |      |      |      |    |      |      |     |      |      |     |      |      | Section 120 |      |      |      |      |      |      |      |     |      |             |     |     |      |     |     |    |       |      |      |    |     |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (8807) | 8807 |      |      | 8820 |    |      | 8830 |     |      | 8840 |     |      | 8850 |             |      | 8860 |      |      | 8870 |      | 8880 |     |      |             |     |     |      |     |     |    |       |      |      |    |     |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                                                                                   | (8272) | G    | CCA  | ACT  | C    | CT | CT   | TTG  | TGC | CT   | CAG  | TG  | -AT  | TC   | C           | AC   | AG   | TGA  | CCCT | TCT  | GAG  | AAG  | CCT | TCCC | TGG         | CC  | TC  | CCAG | GTG | AG  |    |       |      |      |    |     |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                                                                                   | (8570) | T    | CCG  | AG   | AG   | CT | GT   | TAG  | AAA | CT   | GAT  | TTT | AT   | AG   | CT          | AG   | AG   | TGA  | TA   | -    | -    | -    | -   | GAC  | AC          | GC  | G   | TGG  | AAT | TG  | GT | TC    | GTCA | GTG  | C- |     |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                                                                                   |        |      |      |      |      |    |      |      |     |      |      |     |      |      |             |      |      |      |      |      |      |      |     |      | Section 121 |     |     |      |     |     |    |       |      |      |    |     |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (8881) | 8881 |      |      | 8890 |    |      | 8900 |     |      | 8910 |     |      | 8920 |             |      | 8930 |      |      | 8940 |      |      |     |      |             |     |     |      |     |     |    |       | 8954 |      |    |     |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                                                                                   | (8345) | A    | TAT  | C    | CC   | T  | CC   | TCT  | G   | GA   | CCC  | GAC | AGCA | TC   | CT          | CT   | CTG  | AA   | CTT  | GAT  | TTT  | TCC  | C   | ACT  | TA          | -   | -   | C    | ACT | G   | GC | T     | GG   | TG   | GC | TC  | AC |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                                                                                   | (8639) | -    | TT   | TC   | AG   | TT | -    | TCT  | T   | GA   | TT   | -   | GAT  | AAT  | -           | TC   | G    | TAT  | TT   | CTG  | CC   | CTT  | G   | -    | TTA         | TCC | G   | ACT  | TA  | TGT | A  | TATAA | TAG  | CCC  | TC | AT  |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                                                                                   |        |      |      |      |      |    |      |      |     |      |      |     |      |      |             |      |      |      |      |      |      |      |     |      | Section 122 |     |     |      |     |     |    |       |      |      |    |     |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (8955) | 8955 |      | 8960 |      |    | 8970 |      |     | 8980 |      |     | 8990 |      |             | 9000 |      |      | 9010 |      |      |      |     |      |             |     |     |      |     |     |    |       |      | 9028 |    |     |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                                                                                   | (8417) | A    | CATT | GAT  | CTG  | C  | CT   | CCC  | TC  | ACT  | CTA  | GG  | CT   | GG   | GAG         | CT   | CCT  | TAAG | AG   | CAG  | GGCC | CC   | CAG | T    | CTG         | CC  | TGT | AT   | CT  | CT  | CT | CT    | CT   | CT   |    |     |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                                                                                   | (8708) | A    | ACAG | GAG  | C    | CT | CT   | TTT  | CG  | C    | CT   | TT  | TA   | TAC  | CG          | T    | CTT  | C    | ATC  | TAAG | G    | GC   | CA  | GGCC | TT          | -   | -   | T    | ACT | GA  | -  | TGT   | AT   | GT   | -  | TGA |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                                                                                   |        |      |      |      |      |    |      |      |     |      |      |     |      |      |             |      |      |      |      |      |      |      |     |      | Section 123 |     |     |      |     |     |    |       |      |      |    |     |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (9029) | 9029 |      |      | 9040 |    |      | 9050 |     |      | 9060 |     |      | 9070 |             |      | 9080 |      |      | 9090 |      |      |     |      |             |     |     |      |     |     |    |       |      | 9102 |    |     |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                                                                                   | (8491) | G    | T    | C    | T    | T  | G    | C    | A   | C    | A    | A   | TG   | CC   | TAG         | CC   | C    | AGG  | C    | T    | A    | G    | G   | T    | G           | C   | -   | TG   | GG  | T   | G  | T     | T    | T    | GC | -   | T  | C | A | A | C | G | A | A | G | G | G | C | T | G | T | A | C | T | G | T | G | G | A |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                                                                                   | (8778) | G    | T    | C    | T    | T  | G    | T    | C   | G    | -    | -   | TG   | GT   | TAG         | CC   | -    | -    | GG   | AT   | G    | G    | G   | T    | G           | AT  | T   | T    | T   | T   | T  | T     | T    | T    | T  | T   | T  | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                                                                  |        |             |      |      |      |      |      |      |      |      |   |
|--------------------------------------------------------------------------------------------------|--------|-------------|------|------|------|------|------|------|------|------|---|
|                                                                                                  |        | Section 127 |      |      |      |      |      |      |      |      |   |
|                                                                                                  |        | (9325)      | 9325 | 9330 | 9340 | 9350 | 9360 | 9370 | 9380 | 9398 |   |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (8767) | AG          | G    | C    | A    | T    | G    | T    | G    | G    | G |
|                                                                                                  | (9062) | T           | T    | G    | T    | A    | A    | G    | A    | G    | T |
|                                                                                                  |        | Section 128 |      |      |      |      |      |      |      |      |   |
|                                                                                                  |        | (9399)      | 9399 | 9410 | 9420 | 9430 | 9440 | 9450 | 9460 | 9472 |   |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (8841) | G           | T    | T    | C    | T    | C    | A    | G    | T    | C |
|                                                                                                  | (9135) | --          | T    | C    | A    | T    | T    | G    | A    | C    | G |
|                                                                                                  |        | Section 129 |      |      |      |      |      |      |      |      |   |
|                                                                                                  |        | (9473)      | 9473 | 9480 | 9490 | 9500 | 9510 | 9520 | 9530 | 9546 |   |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (8913) | G           | A    | A    | G    | C    | C    | A    | T    | T    | C |
|                                                                                                  | (9207) | A           | A    | T    | C    | G    | G    | G    | T    | T    | C |
|                                                                                                  |        | Section 130 |      |      |      |      |      |      |      |      |   |
|                                                                                                  |        | (9547)      | 9547 | 9560 | 9570 | 9580 | 9590 | 9600 | 9610 | 9620 |   |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (8984) | C           | C    | T    | C    | C    | C    | A    | G    | T    | G |
|                                                                                                  | (9279) | T           | A    | T    | A    | T    | A    | T    | C    | G    | T |
|                                                                                                  |        | Section 131 |      |      |      |      |      |      |      |      |   |
|                                                                                                  |        | (9621)      | 9621 | 9630 | 9640 | 9650 | 9660 | 9670 | 9680 | 9694 |   |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (9056) | T           | T    | T    | A    | C    | T    | C    | A    | T    | T |
|                                                                                                  | (9351) | A           | T    | T    | A    | C    | T    | C    | A    | T    | T |
|                                                                                                  |        | Section 132 |      |      |      |      |      |      |      |      |   |
|                                                                                                  |        | (9695)      | 9695 | 9700 | 9710 | 9720 | 9730 | 9740 | 9750 | 9768 |   |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (9120) | G           | A    | G    | G    | A    | A    | G    | T    | T    | G |
|                                                                                                  | (9425) | G           | -    | G    | G    | A    | T    | C    | T    | G    | T |
|                                                                                                  |        | Section 133 |      |      |      |      |      |      |      |      |   |
|                                                                                                  |        | (9769)      | 9769 | 9780 | 9790 | 9800 | 9810 | 9820 | 9830 | 9842 |   |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (9194) | A           | G    | G    | T    | C    | T    | T    | A    | G    | A |
|                                                                                                  | (9498) | A           | T    | A    | T    | T    | T    | A    | T    | T    | T |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                                                                  |         |             |        |         |          |        |          |           |       |           |           |
|--------------------------------------------------------------------------------------------------|---------|-------------|--------|---------|----------|--------|----------|-----------|-------|-----------|-----------|
|                                                                                                  |         | Section 134 |        |         |          |        |          |           |       |           |           |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (9843)  | 9843        | 9850   | 9860    | 9870     | 9880   | 9890     | 9900      |       |           |           |
|                                                                                                  | (9266)  | GGTGTCAA    | CTCAGG | ATAGTAA | CAGCAGCT | GCTTTC | AGGGA--- | GTGCTTCCT | GCTCT | TACCATGTG | CCAAGCA   |
|                                                                                                  | (9570)  | GCTTCTGT    | CTGAGT | ATGAA   | AGTTAGCT | ACAA   | TTC      | TAATATCTC | TATTT | TAAGATCT  | AGAGGAAGC |
|                                                                                                  |         | Section 135 |        |         |          |        |          |           |       |           |           |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (9917)  | 9917        | 9930   | 9940    | 9950     | 9960   | 9970     | 9980      |       |           |           |
|                                                                                                  | (9337)  | CGT         | TACATG | C       | TTTG     | T      | AGG      | TTT       | CATG  | CC        | CAGAAC    |
|                                                                                                  | (9644)  | GGT         | GT     | CATG    | G        | T      | AAT      | T         | G     | AAT       | TCC       |
|                                                                                                  |         | Section 136 |        |         |          |        |          |           |       |           |           |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (9991)  | 9991        | 10000  | 10010   | 10020    | 10030  | 10040    | 10050     |       |           |           |
|                                                                                                  | (9410)  | C           | AGAG   | AGG---  | TCGAG    | T      | GAC      | CTGC      | CT    | C         | A         |
|                                                                                                  | (9716)  | AA          | AAG    | GGG     | GCT      | T      | AG       | TT        | T     | ATT       | CTGC      |
|                                                                                                  |         | Section 137 |        |         |          |        |          |           |       |           |           |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (10065) | 10065       | 10070  | 10080   | 10090    | 10100  | 10110    | 10120     |       |           |           |
|                                                                                                  | (9478)  | --          | GTCT   | TGCT    | CTG---   | TTGCCC | AGG      | CTG       | GAG   | TG        | CA        |
|                                                                                                  | (9790)  | TT          | G      | ACT     | AC       | CT     | T        | ACT       | AA    | TT        | CAGA      |
|                                                                                                  |         | Section 138 |        |         |          |        |          |           |       |           |           |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (10139) | 10139       | 10150  | 10160   | 10170    | 10180  | 10190    | 10200     |       |           |           |
|                                                                                                  | (9535)  | TC          | CGT    | CT      | CCCC     | GGTT   | CAAGC    | GAT       | TCTCC | TGCC      | T         |
|                                                                                                  | (9864)  | GT          | CGT    | TT      | TGG      | G      | TAAGAT   | GTA       | GA    | ATT       | AAA       |
|                                                                                                  |         | Section 139 |        |         |          |        |          |           |       |           |           |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (10213) | 10213       | 10220  | 10230   | 10240    | 10250  | 10260    | 10270     |       |           |           |
|                                                                                                  | (9607)  | -           | A      | CACC    | CG       | GCT    | AA       | T         | G     | T         | T         |
|                                                                                                  | (9934)  | G           | A      | TGTT    | CG       | TTA    | AA       | A         | T     | T         | C         |
|                                                                                                  |         | Section 140 |        |         |          |        |          |           |       |           |           |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (10287) | 10287       | 10300  | 10310   | 10320    | 10330  | 10340    | 10350     |       |           |           |
|                                                                                                  | (9675)  | CT          | CCT    | G       | AC       | CTT    | G        | T         | G     | A         | T         |
|                                                                                                  | (10008) | GG          | CCT    | T       | A        | CTT    | T        | A         | A     | A         | G         |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                       |         |             |           |          |          |        |         |        |         |        |        |         |           |          |          |           |       |         |     |   |
|-------------------------------------------------------|---------|-------------|-----------|----------|----------|--------|---------|--------|---------|--------|--------|---------|-----------|----------|----------|-----------|-------|---------|-----|---|
|                                                       |         | Section 141 |           |          |          |        |         |        |         |        |        |         |           |          |          |           |       |         |     |   |
|                                                       | (10361) | 10361       | 10370     | 10380    | 10390    | 10400  | 10410   | 10420  | 10434   |        |        |         |           |          |          |           |       |         |     |   |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (9747)  | GC---       | CAATCTTTT | TTTTTTT  | TTTTTTT  | TGAGA  | CAGG    | GTCT   | CAC     | TTGT   | TGGGCC | AGGC    | TGGAGT    |          |          |           |       |         |     |   |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (10082) | GAGCG       | CTATAAC   | TGATT    | GCGGT    | TGTGC  | TTTCT   | CAAA   | TGCAT   | CAGT   | GT     | TGCACAT | CA        | TAAAGAG  | AGATA    | T         | TAAAC |         |     |   |
|                                                       |         | Section 142 |           |          |          |        |         |        |         |        |        |         |           |          |          |           |       |         |     |   |
|                                                       | (10435) | 10435       | 10440     | 10450    | 10460    | 10470  | 10480   | 10490  | 10508   |        |        |         |           |          |          |           |       |         |     |   |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (9817)  | GCAGAGG     | CACAA     | TATG-    | GCTTACT  | GGAGG  | CTCAAC  | CTCTC  | GGACT   | CAAGCG | ATCCT  | CTCA    | CCCCA     | GCCCCCTA |          |           |       |         |     |   |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (10156) | GTGAACA     | CTACTA    | GCCGAG   | TTCAGGAG | -CGAAC | CAATGGG | GGAAT  | TGTATT  | AACTC  | -CTA   | ATTGGG  | GTTAATGT  |          |          |           |       |         |     |   |
|                                                       |         | Section 143 |           |          |          |        |         |        |         |        |        |         |           |          |          |           |       |         |     |   |
|                                                       | (10509) | 10509       | 10520     | 10530    | 10540    | 10550  | 10560   | 10570  | 10582   |        |        |         |           |          |          |           |       |         |     |   |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (9890)  | AGTACC      | TGGGA     | CTACAG   | GTGTACA  | CCACCA | TGCC    | TCGT   | CATT    | TTTTGT | ATT    | TT----- | TTGTAG    | GAG      | AATGGG   |           |       |         |     |   |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (10228) | TTTATA      | TATGT     | CTACAG   | CCA      | TACA   | TGTTAG  | TGCC   | ATTGT   | GCGT   | ATTCC  | ATATT   | TTCCCAACA | TTGTCT   | -AATGGA  |           |       |         |     |   |
|                                                       |         | Section 144 |           |          |          |        |         |        |         |        |        |         |           |          |          |           |       |         |     |   |
|                                                       | (10583) | 10583       | 10590     | 10600    | 10610    | 10620  | 10630   | 10640  | 10656   |        |        |         |           |          |          |           |       |         |     |   |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (9957)  | TTTCAC      | CATG      | TTGCC    | CAGGCT   | GTGTC  | TCGAAC  | TCTGGG | ---CTCA | AGT    | GATCC  | ACCCG   | CCTTGG    | CTCC     | CAA--    |           |       |         |     |   |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (10301) | TCTCG       | CCCTA     | --GACTAC | GCCGC    | CATTA  | AAAC    | CCAT   | TATAAAA | CAT    | ATTTAT | TATTT   | GTTTCAAA  | CTACC    | CTTT     |           |       |         |     |   |
|                                                       |         | Section 145 |           |          |          |        |         |        |         |        |        |         |           |          |          |           |       |         |     |   |
|                                                       | (10657) | 10657       | 10670     | 10680    | 10690    | 10700  | 10710   | 10720  | 10730   |        |        |         |           |          |          |           |       |         |     |   |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (10026) | AGTG        | CTGGC     | CGGGT    | TCCGT    | GCCCA  | GCCAG   | GTCAT  | CTG     | ACTTA  | AAGCAT | GAGCT   | CCC       | ATC      | CGCT     | CCAATCCAT | G     |         |     |   |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (10373) | AGTG        | ATTAG     | CGGG     | ATT--    | TAGTT  | GTTAT   | GTC    | AACT    | AGTAAG | AAGTTA | GTACC   | CAA       | ATTCC    | CTAGGCAT | GTG       | C     |         |     |   |
|                                                       |         | Section 146 |           |          |          |        |         |        |         |        |        |         |           |          |          |           |       |         |     |   |
|                                                       | (10731) | 10731       | 10740     | 10750    | 10760    | 10770  | 10780   | 10790  | 10804   |        |        |         |           |          |          |           |       |         |     |   |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (10100) | CTCAT       | TCAAAA    | TTTT     | AGA      | GCCC   | AG-GA   | GAG    | GCAG    | GCTG   | CTC--  | TGCC    | CT---     | AA       | GCTCT    | GGGG      | AA    | CCA---- | C   |   |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (10445) | CTATC       | TACAAA    | GCG      | ATTT     | GTT    | ATA     | GATT   | GTATC   | GTTT   | CTC    | GATGC   | GGTCT     | GAA      | ATAT     | TCTA      | AA    | ACTTT   | GTT | C |
|                                                       |         | Section 147 |           |          |          |        |         |        |         |        |        |         |           |          |          |           |       |         |     |   |
|                                                       | (10805) | 10805       | 10810     | 10820    | 10830    | 10840  | 10850   | 10860  | 10878   |        |        |         |           |          |          |           |       |         |     |   |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (10164) | G           | GGTGCC    | GGTCA    | AGAG     | GGGG   | G--CA   | CCCC   | GTGC    | CTC    | CTACC  | AC--    | ACC       | TTCT     | GGA      | AGACA     | TAG   | CCCC-   | CGC |   |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (10519) | G           | TGT       | AAAAA    | TAAAA    | TTGGT  | GGATCA  | AATTAG | GTAG    | CACG   | TAAA   | ACGGA   | ATT       | TTAATA   | ATT      | ATT       | TAG   | GTTTG   | CAC |   |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                      |         |             |         |         |         |         |         |         |       |         |     |        |     |     |    |     |     |      |       |      |      |      |     |     |       |    |     |     |     |     |      |     |     |    |        |    |    |     |    |    |       |    |     |   |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
|------------------------------------------------------|---------|-------------|---------|---------|---------|---------|---------|---------|-------|---------|-----|--------|-----|-----|----|-----|-----|------|-------|------|------|------|-----|-----|-------|----|-----|-----|-----|-----|------|-----|-----|----|--------|----|----|-----|----|----|-------|----|-----|---|----|---|----|----|---|---|---|---|----|---|---|----|---|---|
|                                                      |         | Section 155 |         |         |         |         |         |         |       |         |     |        |     |     |    |     |     |      |       |      |      |      |     |     |       |    |     |     |     |     |      |     |     |    |        |    |    |     |    |    |       |    |     |   |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
|                                                      | (11397) | 11397       | 11410   | 11420   | 11430   | 11440   | 11450   | 11460   | 11470 |         |     |        |     |     |    |     |     |      |       |      |      |      |     |     |       |    |     |     |     |     |      |     |     |    |        |    |    |     |    |    |       |    |     |   |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (10709) | TTCAAA      | GACACTT | TCTTCAC | TGGTCAG | CTCTCCC | CCACATC | TTCA    | G     | CAGCTCC | T   | CCT    | TG  | GG  | GG | CA  | CT  | T    | C     | T    |      |      |     |     |       |    |     |     |     |     |      |     |     |    |        |    |    |     |    |    |       |    |     |   |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (11101) | TACATG      | GACACTT | GTGTC   | --TGG   | ---     | GATC    | GATGA   | C     | G       | C   | TAG    | TC  | --- | G  | A   | G   | G    | A     | G    | T    | G    | A   | C   | GG    | C  | C   | A   | T   | A   | T    | T   |     |    |        |    |    |     |    |    |       |    |     |   |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
|                                                      |         | Section 156 |         |         |         |         |         |         |       |         |     |        |     |     |    |     |     |      |       |      |      |      |     |     |       |    |     |     |     |     |      |     |     |    |        |    |    |     |    |    |       |    |     |   |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
|                                                      | (11471) | 11471       | 11480   | 11490   | 11500   | 11510   | 11520   | 11530   | 11544 |         |     |        |     |     |    |     |     |      |       |      |      |      |     |     |       |    |     |     |     |     |      |     |     |    |        |    |    |     |    |    |       |    |     |   |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (10783) | TCAG        | G       | TAGAA   | --      | GAGGT   | AG      | TAGT    | C     | CTTCAG  | CTC | CC     | C   | AA  | AG | GC  | AGG | G    | AAG   | AG   | GAAT | T    | GC  | CC  | TG    | G  | CAG | AG  | GGG | T   |      |     |     |    |        |    |    |     |    |    |       |    |     |   |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (11166) | ATCT        | G       | TAGAA   | CT      | GAGGT   | T       | C       | T     | GTG     | C   | ACAGTC | CTC | GT  | C  | TT  | AG  | CA   | A     | AA   | G    | AGGC | A   | T   | GA    | T  | A   | CC  | G   | TG  | A    | C   | A   | A  | A      | C  | A  | T   |    |    |       |    |     |   |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
|                                                      |         | Section 157 |         |         |         |         |         |         |       |         |     |        |     |     |    |     |     |      |       |      |      |      |     |     |       |    |     |     |     |     |      |     |     |    |        |    |    |     |    |    |       |    |     |   |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
|                                                      | (11545) | 11545       | 11550   | 11560   | 11570   | 11580   | 11590   | 11600   | 11618 |         |     |        |     |     |    |     |     |      |       |      |      |      |     |     |       |    |     |     |     |     |      |     |     |    |        |    |    |     |    |    |       |    |     |   |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (10855) | GCCC        | A       | G       | AGGT    | C       | --      | AGGGCAC | --    | AC      | T   | CC     | T   | G   | A  | C   | AG  | G    | GC    | AGT  | G    | CC   | ACC | AC  | A     | T  | G   | CCC | AG  | G   | AG   | GC  | CAT | TC | CTGTAA | A  | T  |     |    |    |       |    |     |   |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (11240) | ATAA        | AA      | A       | TTA     | C       | G       | A       | GGCAC | CG      | AG  | T      | CC  | A   | GA | T   | A   | CTA  | G     | A    | T    | G    | T   | G   | A     | AA | A   | AT  | T   | A   | ATT  | A   | T   | G  | T      | C  | A  | C   | -- | TC | ----- | AT |     |   |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
|                                                      |         | Section 158 |         |         |         |         |         |         |       |         |     |        |     |     |    |     |     |      |       |      |      |      |     |     |       |    |     |     |     |     |      |     |     |    |        |    |    |     |    |    |       |    |     |   |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
|                                                      | (11619) | 11619       | 11630   | 11640   | 11650   | 11660   | 11670   | 11680   | 11692 |         |     |        |     |     |    |     |     |      |       |      |      |      |     |     |       |    |     |     |     |     |      |     |     |    |        |    |    |     |    |    |       |    |     |   |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (10926) | T           | C       | T       | G       | C       | CC      | T       | GAC   | T       | C   | C      | T   | C   | C  | AGG | T   | CA   | ACCAC | A    | AG   | CATG | CA  | AA  | CTT   | C  | T   | T   | G   | CCC | T    | CC  | CG  | C  | T      | C  | CA | AG  | GA | CA | AA    | AG |     |   |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (11306) | TATGT       | CCC     | C       | GAT     | T       | T       | T       | AGT   | C       | C   | G      | --  | CA  | T  | G   | T   | GA   | A     | GA   | CATG | G    | T   | AA  | GGATG | T  | T   | T   | AA  | A   | TAT  | GAT | G   | T  | CA     | AC | G  | T   | C  | T  | C     | T  | AAA |   |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
|                                                      |         | Section 159 |         |         |         |         |         |         |       |         |     |        |     |     |    |     |     |      |       |      |      |      |     |     |       |    |     |     |     |     |      |     |     |    |        |    |    |     |    |    |       |    |     |   |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
|                                                      | (11693) | 11693       | 11700   | 11710   | 11720   | 11730   | 11740   | 11750   | 11766 |         |     |        |     |     |    |     |     |      |       |      |      |      |     |     |       |    |     |     |     |     |      |     |     |    |        |    |    |     |    |    |       |    |     |   |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (11000) | TGT         | A       | T       | T       | T       | G       | CA      | AGG   | AA      | G   | T      | C   | T   | G  | C   | AG  | GGCC | T     | CA   | CC   | AG   | C   | G   | G     | C  | G   | T   | T   | --  | AGGG | AA  | C   | -- | TC     | G  | T  | CCC | A  | C  | T     | C  | T   | G | GG | T | A  | -- | C |   |   |   |    |   |   |    |   |   |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (11379) | TGT         | T       | T       | A       | T       | A       | T       | G     | A       | TT  | AA     | T   | G   | T  | T   | A   | GA   | A     | ---- | T    | T    | A   | T   | A     | T  | C   | T   | G   | T   | C    | A   | T   | T  | CC     | A  | CA | AA  | C  | A  | T     | T  | T   | C | T  | A | AA | A  | T | A | T | G | AA | A | C | T  | C |   |
|                                                      |         | Section 160 |         |         |         |         |         |         |       |         |     |        |     |     |    |     |     |      |       |      |      |      |     |     |       |    |     |     |     |     |      |     |     |    |        |    |    |     |    |    |       |    |     |   |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
|                                                      | (11767) | 11767       | 11780   | 11790   | 11800   | 11810   | 11820   | 11830   | 11840 |         |     |        |     |     |    |     |     |      |       |      |      |      |     |     |       |    |     |     |     |     |      |     |     |    |        |    |    |     |    |    |       |    |     |   |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (11069) | G           | G       | T       | A       | G       | A       | T       | G     | T       | A   | A      | C   | T   | -- | CT  | G   | G    | AG    | GGCC | CAG  | A    | AG  | T   | G     | G  | A   | C   | G   | T   | A    | C   | A   | T  | C      | T  | T  | CC  | -- | T  | C     | T  | G   | C | G  | C | T  | T  | G | G | G | T |    |   |   |    |   |   |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (11449) | G           | T       | A       | TT      | T       | A       | C       | AA    | CTTT    | AGT | AAT    | CAG | C   | AG | TAT | G   | TTT  | A     | CA   | ATT  | G    | T   | CGT | CA    | AT | G   | TT  | TAA | T   | AT   | TTT | G   | T  | T      | A  | T  | A   | T  | G  | C     | T  | A   | T | G  | C | G  |    |   |   |   |   |    |   |   |    |   |   |
|                                                      |         | Section 161 |         |         |         |         |         |         |       |         |     |        |     |     |    |     |     |      |       |      |      |      |     |     |       |    |     |     |     |     |      |     |     |    |        |    |    |     |    |    |       |    |     |   |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
|                                                      | (11841) | 11841       | 11850   | 11860   | 11870   | 11880   | 11890   | 11900   | 11914 |         |     |        |     |     |    |     |     |      |       |      |      |      |     |     |       |    |     |     |     |     |      |     |     |    |        |    |    |     |    |    |       |    |     |   |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (11138) | GGG         | C       | G       | C       | T       | G       | AG      | AG    | CC      | CA  | G      | G   | T   | AG | GG  | G   | A    | C     | G    | CC   | --   | T   | G   | G     | T  | G   | A   | G   | G   | A    | T   | G   | AG | A      | CA | AG | GG  | AT | T  | G     | C  | T   | A |    |   |    |    |   |   |   |   |    |   |   |    |   |   |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (11523) | ACC         | C       | G       | T       | T       | G       | CA      | A     | --      | CT  | T      | G   | T   | G  | T   | C   | T    | T     | C    | G    | T    | G   | T   | G     | T  | A   | A   | T   | T   | G    | C   | G   | T  | G      | G  | T  | T   | T  | AA | A     | A  | A   | C | T  | A | A  | A  | T | C | A | A | T  | C | G | -- | T | T |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                      |         |              |               |                  |         |           |            |               |                                    |
|------------------------------------------------------|---------|--------------|---------------|------------------|---------|-----------|------------|---------------|------------------------------------|
|                                                      |         | Section 162  |               |                  |         |           |            |               |                                    |
|                                                      | (11915) | 11915        | 11920         | 11930            | 11940   | 11950     | 11960      | 11970         | 11988                              |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (11211) | GAGGGAGGCGGA | GCAGGGAGCA    | CCCTCTGAGGCTGAGT | CTTCCA  | TCTGATGC  | CCTCTGAG   | ACTG          |                                    |
| SARS-CoV-2 Reference Genome Shuffle No.1 (11594)     |         | CATGTACCTTGA | TTGCTTGACCGTA | AGCGCTTTCTCTG    | TCGTCTG | CCA       | GCCTCTATTA | CCTTTCTAC     | GC                                 |
|                                                      |         | Section 163  |               |                  |         |           |            |               |                                    |
|                                                      | (11989) | 11989        | 12000         | 12010            | 12020   | 12030     | 12040      | 12050         | 12062                              |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (11277) | GAGCCCTCGAT  | TGTGCC        | AGCTAGCCAT       | TGGCACA | GACATCAT  | CTGT       | GTACCA        | CGTGGGAGCCA                        |
| SARS-CoV-2 Reference Genome Shuffle No.1 (11668)     |         | GAAAAATGCG   | CTCCTCCGAA    | ACACGTTGT        | TTTCA   | TCGACATAC | TTAACT     | TAACGC        | ACCACTCTTGGTATTGA                  |
|                                                      |         | Section 164  |               |                  |         |           |            |               |                                    |
|                                                      | (12063) | 12063        | 12070         | 12080            | 12090   | 12100     | 12110      | 12120         | 12136                              |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (11340) | GCACTGCA     | GCCGGGGCTG    | CTCTTGG          | ACCTCCT | CTGGGATCT | CTGG       | GCCAC         | TGCCCTCACCTGGGGTCT                 |
| SARS-CoV-2 Reference Genome Shuffle No.1 (11742)     |         | GCACTACA     | CTTATA        | GCTGT            | TAA     | TCA       | ACCATAA    | TGCTGAGAC     | CTGGTAGGTTGTGCCGTAAGAACGA          |
|                                                      |         | Section 165  |               |                  |         |           |            |               |                                    |
|                                                      | (12137) | 12137        | 12150         | 12160            | 12170   | 12180     | 12190      | 12200         | 12210                              |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (11411) | CAGTCCACAT   | TCCCA         | AGGCGCTT         | CAGCA   | CTCTGTGG  | TAGCATCT   | TCGCGGT       | TGAGGGTGTAGAAGTGGAGG               |
| SARS-CoV-2 Reference Genome Shuffle No.1 (11811)     |         | CACACATTTT   | TAGCGA        | AATGTT           | CGC     | CAGCA     | AGTCTCTGG  | AGCTTATTA     | ATATGAGTGAAATCATAGTAC              |
|                                                      |         | Section 166  |               |                  |         |           |            |               |                                    |
|                                                      | (12211) | 12211        | 12220         | 12230            | 12240   | 12250     | 12260      | 12270         | 12284                              |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (11482) | CCTGGC       | ACCAAGCC      | ACTGG            | CCAGA   | AGCTCC    | TGGCAC     | AGGCTCAC      | GGCCAGCTCGATGCCATAGTTGCGGATGGC     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (11879)     |         | CCT          | AC            | TCTGTCT          | TGG     | TTC       | GTTGAGT    | TAGCA         | AACCCTTAGAGAGGTAGTTACCTGAACTAAGATC |
|                                                      |         | Section 167  |               |                  |         |           |            |               |                                    |
|                                                      | (12285) | 12285        | 12290         | 12300            | 12310   | 12320     | 12330      | 12340         | 12358                              |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (11556) | AGCAT        | C-GTTG        | TCTTTG           | ATTGG   | CTCAAT    | CACTCCTT   | GATCTCTG      | TGGCACCTCCAGCTTGGACAGCTTC          |
| SARS-CoV-2 Reference Genome Shuffle No.1 (11944)     |         | ATCAT        | TAGTT         | TCTTT            | TATAG   | CGACT     | TATTTATATA | TAAGACTTCTGCT | GCTGAAACATAAGGATACATTT             |
|                                                      |         | Section 168  |               |                  |         |           |            |               |                                    |
|                                                      | (12359) | 12359        | 12370         | 12380            | 12390   | 12400     | 12410      | 12420         | 12432                              |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (11626) | ACAA         | GCTG          | CGAAGG           | AGTG    | GTAGC     | CTGT       | CAAGACA       | TGAGGGGCTGTGGCGGCTGCTGGCCAGCCGTCTC |
| SARS-CoV-2 Reference Genome Shuffle No.1 (12015)     |         | ATTATAT      | CTTCT         | GATAG            | CTGT    | CTTG      | GACTGT     | AAC           | TGACGAATCAATTGACATACCACTCT         |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                       |         |             |       |        |        |       |        |        |       |       |      |         |         |      |        |      |     |       |       |       |      |      |      |      |       |     |      |     |     |      |      |        |     |    |     |
|-------------------------------------------------------|---------|-------------|-------|--------|--------|-------|--------|--------|-------|-------|------|---------|---------|------|--------|------|-----|-------|-------|-------|------|------|------|------|-------|-----|------|-----|-----|------|------|--------|-----|----|-----|
|                                                       |         | Section 169 |       |        |        |       |        |        |       |       |      |         |         |      |        |      |     |       |       |       |      |      |      |      |       |     |      |     |     |      |      |        |     |    |     |
|                                                       | (12433) | 12433       | 12440 | 12450  | 12460  | 12470 | 12480  | 12490  | 12506 |       |      |         |         |      |        |      |     |       |       |       |      |      |      |      |       |     |      |     |     |      |      |        |     |    |     |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (11700) | CAC         | CCTAA | AAATAC | -TTCT  | CCCCT | CTTC   | CATCAT | CCAT  | TGC   | CA   | ACCACAG | TGT     | CAGG | CAG    | AGGG | AC  | CC    | AC    | GAA   | ---- |      |      |      |       |     |      |     |     |      |      |        |     |    |     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (12083)      |         | TAC         | TAA   | AAATA  | AA     | TGCT  | AAAG   | CATAT  | CATCA | -CCT  | TGC  | AA      | TTTCTTC | TAT  | TCA    | A-   | CAC | A     | TAA   | AC    | GT   | AAT  | AA   | TACT |       |     |      |     |     |      |      |        |     |    |     |
|                                                       |         | Section 170 |       |        |        |       |        |        |       |       |      |         |         |      |        |      |     |       |       |       |      |      |      |      |       |     |      |     |     |      |      |        |     |    |     |
|                                                       | (12507) | 12507       | 12520 | 12530  | 12540  | 12550 | 12560  | 12570  | 12580 |       |      |         |         |      |        |      |     |       |       |       |      |      |      |      |       |     |      |     |     |      |      |        |     |    |     |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (11768) | AGT         | CCG   | ATCAT  | TAT    | TCT   | AGG    | AGC    | AC    | CTGGG | CT   | TGGCC   | TG      | CCG  | -TTT   | TC   | CT  | CT    | TTTTT | TCT   | TGTT | TTTT | AGA  | -GA  |       |     |      |     |     |      |      |        |     |    |     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (12155)      |         | AGT         | TCT   | ATG    | A      | AGC   | T      | TAA    | CA    | ATT   | AC   | GA      | ACATA   | C    | AAAAA  | T    | A   | C     | ATC   | TT    | T    | G    | T    | CT   | GG    | GAC | T    | A   | AG  | TTT  | AA   | AC     | GA  |    |     |
|                                                       |         | Section 171 |       |        |        |       |        |        |       |       |      |         |         |      |        |      |     |       |       |       |      |      |      |      |       |     |      |     |     |      |      |        |     |    |     |
|                                                       | (12581) | 12581       | 12590 | 12600  | 12610  | 12620 | 12630  | 12640  | 12654 |       |      |         |         |      |        |      |     |       |       |       |      |      |      |      |       |     |      |     |     |      |      |        |     |    |     |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (11840) | CT          | GAGT  | CT     | CACTGC | T     | CT     | AA     | ACG   | CC    | AG   | GGCTCA  | AG      | CC   | AT     | CCT  | CC  | TGCC  | TCAG  | -CTT  | CT   | -CA  | AGTA | GCCG | GG    | ACT |      |     |     |      |      |        |     |    |     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (12229)      |         | T           | TT    | AGT    | TG     | TTG   | CAA    | T      | AT    | CT    | CA   | AT      | CA      | --   | GGCTCA | TA   | CC  | TG    | CT    | T     | A    | TCGA | TCAG | A    | CTT   | T   | A    | CA  | T   | GTA  | TATT | GTTT   | T   |    |     |
|                                                       |         | Section 172 |       |        |        |       |        |        |       |       |      |         |         |      |        |      |     |       |       |       |      |      |      |      |       |     |      |     |     |      |      |        |     |    |     |
|                                                       | (12655) | 12655       | 12660 | 12670  | 12680  | 12690 | 12700  | 12710  | 12728 |       |      |         |         |      |        |      |     |       |       |       |      |      |      |      |       |     |      |     |     |      |      |        |     |    |     |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (11912) | AC          | AGG   | -CAC   | ---    | GT    | G      | CC     | ACT   | AT    | GCCC | AG      | C       | TT   | TCCC   | AC   | TTT | TTT   | AC    | -AG   | AG   | TAG  | AGCA | GC   | -TG   | C   | ---- | CC  | T   | AGC  |      |        |     |    |     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (12301)      |         | GA          | AG    | TT     | CAC    | CT    | AG     | T      | ACCT  | CA    | AT   | TT      | --      | AG   | TTT    | ATTT | AC  | AA    | TT    | G     | AC   | G    | AG   | A    | T     | AG  | C    | G   | CA  | TTA  | TG   | TATATA | CG  | T  | AGC |
|                                                       |         | Section 173 |       |        |        |       |        |        |       |       |      |         |         |      |        |      |     |       |       |       |      |      |      |      |       |     |      |     |     |      |      |        |     |    |     |
|                                                       | (12729) | 12729       | 12740 | 12750  | 12760  | 12770 | 12780  | 12790  | 12802 |       |      |         |         |      |        |      |     |       |       |       |      |      |      |      |       |     |      |     |     |      |      |        |     |    |     |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (11975) | A           | TTCCA | GCC    | TT     | ----  | GG     | GTT    | G     | AGCC  | AG   | C       | TTT     | --   | TAGCC  | CT   | AG  | ATG   | TGTC  | TG    | TT   | GGT  | AAC  | ATGG | TG    | CA  | TCTA |     |     |      |      |        |     |    |     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (12373)      |         | -           | TTCCA | AAA    | T      | CC    | AAAACA | GTT    | CA    | CAA   | AG   | T       | CTTT    | CG   | TA     | CGG  | CGC | G     | CAT   | TAAT  | T    | ATTT | TTC  | AG   | CTATA | TT  | TAT  | TC  | AA  |      |      |        |     |    |     |
|                                                       |         | Section 174 |       |        |        |       |        |        |       |       |      |         |         |      |        |      |     |       |       |       |      |      |      |      |       |     |      |     |     |      |      |        |     |    |     |
|                                                       | (12803) | 12803       | 12810 | 12820  | 12830  | 12840 | 12850  | 12860  | 12876 |       |      |         |         |      |        |      |     |       |       |       |      |      |      |      |       |     |      |     |     |      |      |        |     |    |     |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (12042) | AC          | C     | CAG    | CT     | G     | TTC    | CC     | ATGC  | TG    | CA   | CTG     | ATC     | ATC  | CGAAT  | CAC  | CT  | GCC   | AA    | G     | CT   | CA   | AGA  | AAG  | T     | AAA | AC   | ACA | CAT | T    | CC   | G      | AG  |    |     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (12446)      |         | TT          | G     | AGA    | CT     | T     | TTC    | TAT    | CTT   | TG    | CA   | AAA     | ATC     | -TA  | CGAAT  | ATT  | CT  | TGT   | AA    | -CT   | ATT  | C    | T    | T    | A     | T   | TTT  | G   | ATG | CA   | G    | TAT    | G   | TT |     |
|                                                       |         | Section 175 |       |        |        |       |        |        |       |       |      |         |         |      |        |      |     |       |       |       |      |      |      |      |       |     |      |     |     |      |      |        |     |    |     |
|                                                       | (12877) | 12877       | 12890 | 12900  | 12910  | 12920 | 12930  | 12940  | 12950 |       |      |         |         |      |        |      |     |       |       |       |      |      |      |      |       |     |      |     |     |      |      |        |     |    |     |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (12116) | G           | ACC   | TCCC   | T      | C     | AG     | ATT    | T     | ACTG  | AGT  | G       | AGA     | A    | CC     | T    | C   | AGGGG | TGGG  | ACC   | T    | G    | AG   | A    | CC    | AC  | TTT  | TT  | G   | AAAA | G    | CTT    | ATC |    |     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (12518)      |         | G           | CCC   | AGAT   | T      | G     | AG     | TAA    | T     | CTAA  | AGT  | G       | TTC     | AG   | T      | A    | C   | TAA   | ACAT  | ATTAA | T    | GA   | AA   | CC   | AC    | GGC | TT   | A   | AA  | CGT  | GG   | TT     | GCG |    |     |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                          |                         |                                                                                 |                                                                               |       |       |       |       |       |       |       |  |  |
|------------------------------------------|-------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|--|--|
|                                          |                         | Section 176                                                                     |                                                                               |       |       |       |       |       |       |       |  |  |
|                                          |                         | (12951)                                                                         | 12951                                                                         | 12960 | 12970 | 12980 | 12990 | 13000 | 13010 | 13024 |  |  |
| Homo sapiens chromosome 1 NC             | 000001.11: 11783698-... | (12190)                                                                         | A-AGTGGTTCGATGA--CAGCCACCTTGGGAAACACTTGA TTTAAAGCAGGATTGTGAATGAGAAATTAGAAATCC |       |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1 | (12592)                 | GGAACGACCA TGGTTATG CAGTCAC---TGGTACCTTTTAC TTTGCGT AGAATTCC---GAGCATTGGC-TAA   |                                                                               |       |       |       |       |       |       |       |  |  |
|                                          |                         | Section 177                                                                     |                                                                               |       |       |       |       |       |       |       |  |  |
|                                          |                         | (13025)                                                                         | 13025                                                                         | 13030 | 13040 | 13050 | 13060 | 13070 | 13080 | 13098 |  |  |
| Homo sapiens chromosome 1 NC             | 000001.11: 11783698-... | (12261)                                                                         | CTTTTGGTGA TGGTTGTGGCCAAAGTACAAACAAACCCCTCAACAGACACGTGTTGCTGGGT TTTGGGGGAAAA  |       |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1 | (12658)                 | ATTATTATATATGCGAGAA TAG----AGTGCGA-AAAAGGT CAGTGGAGACACATTTACATG--TATAGGGGAACCT |                                                                               |       |       |       |       |       |       |       |  |  |
|                                          |                         | Section 178                                                                     |                                                                               |       |       |       |       |       |       |       |  |  |
|                                          |                         | (13099)                                                                         | 13099                                                                         | 13110 | 13120 | 13130 | 13140 | 13150 | 13160 | 13172 |  |  |
| Homo sapiens chromosome 1 NC             | 000001.11: 11783698-... | (12335)                                                                         | TTAGAGGTAAACAAAATGGGGTGCCAAAGCAACGC-TGTGCAAGTTCTGGACCTG-AGAGGAGATCTGGGAAGA    |       |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1 | (12725)                 | TTAGATGT TTA CTTAATATTC TGTAAATACTAAACA TGGTCAA CAACAGCCGCTGTAGACGGCTC-----     |                                                                               |       |       |       |       |       |       |       |  |  |
|                                          |                         | Section 179                                                                     |                                                                               |       |       |       |       |       |       |       |  |  |
|                                          |                         | (13173)                                                                         | 13173                                                                         | 13180 | 13190 | 13200 | 13210 | 13220 | 13230 | 13246 |  |  |
| Homo sapiens chromosome 1 NC             | 000001.11: 11783698-... | (12407)                                                                         | ACTCAGCGAAGCTCAGCAC TCCACCCAGAGCCCCCAGCC TGTGCGAGGACGGTGCCTGAGAGTG GGGT--GGAG |       |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1 | (12791)                 | ACTAGTCAATCGCTGA--TCCACATTTATTAGGCTTTATATTCTGA--ATTTT TTAATAACACCA GGATTCGTCA   |                                                                               |       |       |       |       |       |       |       |  |  |
|                                          |                         | Section 180                                                                     |                                                                               |       |       |       |       |       |       |       |  |  |
|                                          |                         | (13247)                                                                         | 13247                                                                         | 13260 | 13270 | 13280 | 13290 | 13300 | 13310 | 13320 |  |  |
| Homo sapiens chromosome 1 NC             | 000001.11: 11783698-... | (12479)                                                                         | GGA GCTTATGGGCT---CTCCTGGGCCCTCAC---CTGG-ATGGGAAGATCCC GGGGACGATGGGGCAAGTG    |       |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1 | (12861)                 | TGA AATCATCTA CT TTTGTCATCTGACCTTTAGTTTCTGGTATTTCCTAAGTACTTG---ACTATTTTAT AAGAG |                                                                               |       |       |       |       |       |       |       |  |  |
|                                          |                         | Section 181                                                                     |                                                                               |       |       |       |       |       |       |       |  |  |
|                                          |                         | (13321)                                                                         | 13321                                                                         | 13330 | 13340 | 13350 | 13360 | 13370 | 13380 | 13394 |  |  |
| Homo sapiens chromosome 1 NC             | 000001.11: 11783698-... | (12546)                                                                         | ATGCCCATGTCGTGCA TGCCTTCAACAAAGCGGAAGAA TGTG-TCA GCTCTCAAGAAAAGCTGCGTGATGATGA |       |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1 | (12932)                 | CGGTTTTTGATTGTGG-TGC AATAA-ATTGCTACAAAT TGTGCTTTGACTCCATGAA GAATCAACGCCAACG     |                                                                               |       |       |       |       |       |       |       |  |  |
|                                          |                         | Section 182                                                                     |                                                                               |       |       |       |       |       |       |       |  |  |
|                                          |                         | (13395)                                                                         | 13395                                                                         | 13400 | 13410 | 13420 | 13430 | 13440 | 13450 | 13468 |  |  |
| Homo sapiens chromosome 1 NC             | 000001.11: 11783698-... | (12619)                                                                         | AATCGGCTCCGCGAGACACCTTCTCCTTCAAGTGTCTTC--AGGTCAGCCTCAAGCTCCC TG--CTTCGGGGTG   |       |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1 | (13004)                 | TAGCG----CTACTAATCTTCTCCTCAGTTATTGGTCGGAAGTTAACGAAGTAA TGTGGGTGTCCTGCTATT TG    |                                                                               |       |       |       |       |       |       |       |  |  |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                      |         |                                                                                                                                                     |       |       |       |       |       |       |       |  |  |
|------------------------------------------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|--|--|
|                                                      |         | Section 183                                                                                                                                         |       |       |       |       |       |       |       |  |  |
|                                                      | (13469) | 13469                                                                                                                                               | 13480 | 13490 | 13500 | 13510 | 13520 | 13530 | 13542 |  |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (12689) | G C C T - T T G G G G T A A C C T G C C A A T A G G G A T G A C A G T C A G G A G A G G C T G G C C T C C A C C T G T T C A A G G C G A G G G A T G |       |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1 (13074)     |         | T C A T G T T G T A G C T T C G T T A C A A T C T T - A T A A C T T T A T G T T A T G A C C A T C C A G A A C T T A T T G A A A A A T A G A A C A C |       |       |       |       |       |       |       |  |  |
|                                                      |         | Section 184                                                                                                                                         |       |       |       |       |       |       |       |  |  |
|                                                      | (13543) | 13543                                                                                                                                               | 13550 | 13560 | 13570 | 13580 | 13590 | 13600 | 13616 |  |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (12762) | A A G A G A - - - - C C A C A G G G A C T G G G C A G - A G A G A G T C C T C T G C T T - - T G G G G G C T C T G A T C T T G C A C C T T C C A A C |       |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1 (13147)     |         | C A T A G T T T A G C G A T A A C C A C A G T G C T C T A T T G G C C G C G T A G C T C G A T A G A T G C T T T A G C C T T A G T T T C G T T A A   |       |       |       |       |       |       |       |  |  |
|                                                      |         | Section 185                                                                                                                                         |       |       |       |       |       |       |       |  |  |
|                                                      | (13617) | 13617                                                                                                                                               | 13630 | 13640 | 13650 | 13660 | 13670 | 13680 | 13690 |  |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (12829) | A G C A C A G C A C A G C C T G A A C T A A A A C A G T G A G T G G C T G G C T C A T G A C - - - T G A T A T G C T T - C T G A C C C C A G A G A   |       |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1 (13221)     |         | A G C A T A G T G C A T T A G T A A T T G A G G A G A T - G T A G C T A G A C T T G T G A C G A T T G G T A A G C T T T C G T T A A C A - A G A     |       |       |       |       |       |       |       |  |  |
|                                                      |         | Section 186                                                                                                                                         |       |       |       |       |       |       |       |  |  |
|                                                      | (13691) | 13691                                                                                                                                               | 13700 | 13710 | 13720 | 13730 | 13740 | 13750 | 13764 |  |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (12899) | T G A C - - - - T C T C A G G G G A G G T G G C T C A G A - - - - G C C C A G T T C C A A G A G T G G G G G T G G A T - T G C T C C A A - - - - A C |       |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1 (13293)     |         | T G A C G T T A T G C C A C T C G A T C T G G T T G T A A T G T T G T G C T G A T C - A A T T G T T T G A G C G T A T G T G T T A C A A T T C T A T |       |       |       |       |       |       |       |  |  |
|                                                      |         | Section 187                                                                                                                                         |       |       |       |       |       |       |       |  |  |
|                                                      | (13765) | 13765                                                                                                                                               | 13770 | 13780 | 13790 | 13800 | 13810 | 13820 | 13838 |  |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (12960) | T C C C A C A C T G T C - C T G C C T T G A G C A G C C - A A G C A A A - - T - - C A G G - - C C T G C A C T T G G T G G C C A T A G A A A A G A G |       |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1 (13366)     |         | T A T T A C T A T G T G T C C A A G T A A C G G A T C C G A A G T A T A A A T T T C T T G A T C G T T A A C T C G C T A C C A T A G C C T C A A A   |       |       |       |       |       |       |       |  |  |
|                                                      |         | Section 188                                                                                                                                         |       |       |       |       |       |       |       |  |  |
|                                                      | (13839) | 13839                                                                                                                                               | 13850 | 13860 | 13870 | 13880 | 13890 | 13900 | 13912 |  |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (13026) | A A A A T G C T A C A G T T A G C A C T G C T T G G G C A G C A T C T T G G G T A G T A A G C T T G A C T T T T C T C T A G G C A C C G G A T T A A |       |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1 (13440)     |         | A T C A G G T T C C T T C T C - C G C T G - - T A T C T C C T T C T A T G G T G C T A G A T T A T C G T T G T T G C T A T G T T G C C T A T T A T   |       |       |       |       |       |       |       |  |  |
|                                                      |         | Section 189                                                                                                                                         |       |       |       |       |       |       |       |  |  |
|                                                      | (13913) | 13913                                                                                                                                               | 13920 | 13930 | 13940 | 13950 | 13960 | 13970 | 13986 |  |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (13100) | A C A T T G T T T T A A T - G T A A C A C T G A A A T A C T C A G G G G T C C A A G A T A G T G A A A A G C T A A A A C C A A G T T A C A C A       |       |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1 (13511)     |         | T C T G C G G T T T C A G T T G T G T T A A A G A G T G G C A G A A G C - T C C T T G A G A - T A C A T A G C T C T A T A A G G A G A T T - A T A   |       |       |       |       |       |       |       |  |  |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                          |                         |             |       |       |       |        |       |          |          |           |           |
|------------------------------------------|-------------------------|-------------|-------|-------|-------|--------|-------|----------|----------|-----------|-----------|
|                                          |                         | Section 190 |       |       |       |        |       |          |          |           |           |
|                                          |                         | (13987)     | 13987 | 14000 | 14010 | 14020  | 14030 | 14040    | 14050    | 14060     |           |
| Homo sapiens chromosome 1 NC             | 000001.11: 11783698-... | (13173)     | AGGAA | GAACT | GAA   | GAAAGT | GAT   | GTTTTC   | TTC      | AAAGAAAAT | AATG      |
| SARS-CoV-2 Reference Genome Shuffle No.1 | (13582)                 | AGTGT       | GGCT  | TCAT  | G     | GGCTT  | TCAT  | TAACCAAT | TGG      | AGTATTTCA | AATAC     |
|                                          |                         |             | GATG  | GCAG  | GGTGC | GGTGG  | CTCA  | --       | TG       | TCT       |           |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AATG  | GATG  | GCAG  | GGTGC  | GGTGG | CTCA     | --       | TG        | TCT       |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      | GGCTT | TCAT     | TAACCAAT | TGG       | AGTATTTCA |
|                                          |                         |             | AGTGT | GGCT  | TCAT  | G      |       |          |          |           |           |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                       |         |        |          |         |         |         |         |         |        |         |         |             |
|-------------------------------------------------------|---------|--------|----------|---------|---------|---------|---------|---------|--------|---------|---------|-------------|
|                                                       |         |        |          |         |         |         |         |         |        |         |         | Section 197 |
|                                                       | (14505) | 14505  | 14510    | 14520   | 14530   | 14540   | 14550   | 14560   |        |         |         | 14578       |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (13663) | CATGGC | TCA-     | CTGTAGC | CTTGA   | ACTCCC  | --GGGC  | ACAGTG  | ATCT   | CCCAC   | TTCA--  | GTCTCCTG    |
| SARS-CoV-2 Reference Genome Shuffle No.1 (14084)      |         | CGTTAT | TC       | CTGAAGT | CGCTT   | ACTCCC  | ATGGGC  | TGATAC  | ATGA   | CCATA   | TTCAAG  | GTCTCAT     |
|                                                       |         |        |          |         |         |         |         |         |        |         |         | Section 198 |
|                                                       | (14579) | 14579  | 14590    | 14600   | 14610   | 14620   | 14630   | 14640   |        |         |         | 14652       |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (13732) | A      | CTACAG   | ATGCAAG | CCACCAT | CTG-    | GCTAA   | TAA     | AAAA   | ATT     | TTTT    | TAA         |
| SARS-CoV-2 Reference Genome Shuffle No.1 (14157)      |         | -      | CTAGA-   | ATCAAT  | GTAA    | TGGCT   | TC      | AAA     | GCTAA  | ATGT    | AGAGAT  | TGGTCC      |
|                                                       |         |        |          |         |         |         |         |         |        |         |         | Section 199 |
|                                                       | (14653) | 14653  | 14660    | 14670   | 14680   | 14690   | 14700   | 14710   |        |         |         | 14726       |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (13800) | GAG    | ATGG-    | GGTCTT  | GCTATC  | TTGTC   | CAGG    | TTT     | GTCTG  | GAAC    | TCT     | GGC         |
| SARS-CoV-2 Reference Genome Shuffle No.1 (14229)      |         | GAA    | ATGAC    | GGC     | CTTACT  | GCA     | TTT     | TGT     | CACT   | TTT     | AAAAA   | GAGG        |
|                                                       |         |        |          |         |         |         |         |         |        |         |         | Section 200 |
|                                                       | (14727) | 14727  | 14740    | 14750   | 14760   | 14770   | 14780   | 14790   |        |         |         | 14800       |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (13872) | T      | CCCAA    | AGTGCT  | GAGAT   | TACAG   | GCAT    | GAG     | CCACT  | GTACCCA | GCCCCCT | AGT         |
| SARS-CoV-2 Reference Genome Shuffle No.1 (14302)      |         | G      | CGCTT    | ATGG--  | GAACG   | TACAGA- | AT      | TTCT    | CTATAA | TTTAGC  | GTTTTTC | AAG         |
|                                                       |         |        |          |         |         |         |         |         |        |         |         | Section 201 |
|                                                       | (14801) | 14801  | 14810    | 14820   | 14830   | 14840   | 14850   | 14860   |        |         |         | 14874       |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (13946) | TG     | TGTTGT   | TTCT    | AATGG   | CAGAAC  | CAGCATC | CGG     | TT     | CAGA    | --      | GAGCTG      |
| SARS-CoV-2 Reference Genome Shuffle No.1 (14373)      |         | AT     | TC       | TGCA    | TTCT    | CGACT   | CACTAC  | TTCTCGT | CTTT   | TT      | AGATTT  | GACAT       |
|                                                       |         |        |          |         |         |         |         |         |        |         |         | Section 202 |
|                                                       | (14875) | 14875  | 14880    | 14890   | 14900   | 14910   | 14920   | 14930   |        |         |         | 14948       |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (14011) | T      | CACA     | AAAC    | AAT     | GAG     | CT      | CCT     | TGG    | AGT     | CT      | GAA         |
| SARS-CoV-2 Reference Genome Shuffle No.1 (14447)      |         | C      | TTT      | AA      | GGAT    | TACT    | CT      | AA      | TTT    | ATT     | TAC     | GAA         |
|                                                       |         |        |          |         |         |         |         |         |        |         |         | Section 203 |
|                                                       | (14949) | 14949  | 14960    | 14970   | 14980   | 14990   | 15000   | 15010   |        |         |         | 15022       |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (14084) | TTAG   | GAGGTGGG | AT      | CA      | GAT     | GTCC    | CATAGG  | CTCCT  | TAC     | TGG     | CT          |
| SARS-CoV-2 Reference Genome Shuffle No.1 (14521)      |         | TT     | CGCT     | -----   | AT      | AT      | GAC     | GTCC    | TGACCC | AGGTAT  | CA      | TG          |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                      |         |             |             |               |            |              |           |               |                        |
|------------------------------------------------------|---------|-------------|-------------|---------------|------------|--------------|-----------|---------------|------------------------|
|                                                      |         | Section 204 |             |               |            |              |           |               |                        |
|                                                      | (15023) | 15023       | 15030       | 15040         | 15050      | 15060        | 15070     | 15080         | 15096                  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (14158) | TAAACT      | TACTAGCC    | GCTTGCT       | CGGT       | CAGGCA       | AGCAGGA   | TGACCATAGGCCT | TCATGAAACTACATGGAGTGC  |
| SARS-CoV-2 Reference Genome Shuffle No.1 (14587)     |         | TAGGCT      | GTTTAGCC    | CATAAAA       | CAGACA     | TAAGAGCA     | TTCGT     | TACAACTAAATC  | TCATATAGCATATA---ATAGT |
|                                                      |         | Section 205 |             |               |            |              |           |               |                        |
|                                                      | (15097) | 15097       | 15110       | 15120         | 15130      | 15140        | 15150     | 15160         | 15170                  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (14231) | TGGT        | TTCATCAGCC  | AAGCCAG       | GGCAGG     | ACTCT        | GAGCCAGG  | CGGAAGGCC     | AAGCTGCTTTGCTCTGATAGGC |
| SARS-CoV-2 Reference Genome Shuffle No.1 (14657)     |         | TGGT        | GAG-TC      | TGCTCTTA      | CATATGGT   | ATTAGGAG     | GAAAAACA  | CTCAAAGCGA    | TATAA--TTGATTTGAAGATGT |
|                                                      |         | Section 206 |             |               |            |              |           |               |                        |
|                                                      | (15171) | 15171       | 15180       | 15190         | 15200      | 15210        | 15220     | 15230         | 15244                  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (14305) | AGTTCCG     | TTCCTTAAGAA | ACCCAGAGT     | CATCAAAAAA | TGAATATAAAAC | TATTGTTTC | AAGGGGT       | AAGGGAGTG              |
| SARS-CoV-2 Reference Genome Shuffle No.1 (14728)     |         | GTTAATTT    | TGATCCG     | ACCGAATGT     | ATTTA----  | TGCATT       | TCCATAGTA | --GTTGA       | AAATTATGACCTCTGTG      |
|                                                      |         | Section 207 |             |               |            |              |           |               |                        |
|                                                      | (15245) | 15245       | 15250       | 15260         | 15270      | 15280        | 15290     | 15300         | 15318                  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (14379) | GGGATAA     | AGCAATGGG   | GCTTCACACT    | TGCAAT---- | AACAAAGCTA   | ----TTTTC | CCAGTAG       | GGAATTTCAGAA           |
| SARS-CoV-2 Reference Genome Shuffle No.1 (14795)     |         | TCGGTTA     | CAAAACGAAT  | GCTTAAC       | TGGTCTAT   | TCCGACCAA    | TCGACGTC  | TTACG         | CCTGCGTTTGTTCACAA      |
|                                                      |         | Section 208 |             |               |            |              |           |               |                        |
|                                                      | (15319) | 15319       | 15330       | 15340         | 15350      | 15360        | 15370     | 15380         | 15392                  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (14445) | ACAAC-AA    | GGCTTTT     | TAAATAGCT     | GAAAAAGT   | ATAGCTACA    | AATACCTAA | ATATCACC      | GACAAATCTAGCATTTGA     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (14869)     |         | ATTTTGAA    | TACCTCAT    | TGCTTG--      | GATTATTACA | ACTA-ATTAC   | GATATGT   | GTTGGAGG      | ACAGGAGC--TTGG         |
|                                                      |         | Section 209 |             |               |            |              |           |               |                        |
|                                                      | (15393) | 15393       | 15400       | 15410         | 15420      | 15430        | 15440     | 15450         | 15466                  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (14518) | TTA         | GTATAGATT   | TGCTATT       | TAC-TCT    | ATTTCAT      | CAAGACAG  | CTGAGG        | GGCTTCTTTTTTAAATGTTT   |
| SARS-CoV-2 Reference Genome Shuffle No.1 (14938)     |         | AGG         | GAAATGTATT  | CTTGAT        | TACATAT    | GAGTTAGT     | GTACTTAC  | CAG-TACT      | GTCTTATGCGGTACAGTAGGA  |
|                                                      |         | Section 210 |             |               |            |              |           |               |                        |
|                                                      | (15467) | 15467       | 15480       | 15490         | 15500      | 15510        | 15520     | 15530         | 15540                  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (14591) | TTATTT      | TTGTAGAGACA | CGTCTCACTGT   | GTG        | CCAGGC       | TGGTCT    | TGATCTCT      | CTGCCTCAGTCTCCCAAAGC   |
| SARS-CoV-2 Reference Genome Shuffle No.1 (15011)     |         | TT--TT      | ATTAGCGAACA | AAGCACATGCAAG | ATCTT      | CA           | TATGTTCT  | ACTACTG       | CGGAGATGATAGCTAACTAC   |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                          |                         |             |       |       |        |         |       |       |       |      |      |      |      |    |      |    |      |    |      |   |         |     |   |    |       |    |   |   |   |   |   |   |
|------------------------------------------|-------------------------|-------------|-------|-------|--------|---------|-------|-------|-------|------|------|------|------|----|------|----|------|----|------|---|---------|-----|---|----|-------|----|---|---|---|---|---|---|
|                                          |                         | Section 211 |       |       |        |         |       |       |       |      |      |      |      |    |      |    |      |    |      |   |         |     |   |    |       |    |   |   |   |   |   |   |
|                                          | (15541)                 | 15541       | 15550 | 15560 | 15570  | 15580   | 15590 | 15600 | 15614 |      |      |      |      |    |      |    |      |    |      |   |         |     |   |    |       |    |   |   |   |   |   |   |
| Homo sapiens chromosome 1 NC             | 000001.11: 11783698-... | (14665)     | TC    | TGGGA | ATTACA | GGCATGA | ----  | GCT   | ACCA  | ---- | TG   | CCCA | ACAG | GT | TG   | GT | TTTC | -- | TAAT | C | CACTCAT | CT  |   |    |       |    |   |   |   |   |   |   |
| SARS-CoV-2 Reference Genome Shuffle No.1 | (15083)                 |             | CA    | TGGGA | CATTT  | GGCATGA | TATTT | GCT   | GGT   | A    | TATA | T    | ACCA | T  | ACAT | GT | AA   | GT | AG   | T | ACGGA   | TAT | T | CA | AGATC | CT |   |   |   |   |   |   |
|                                          |                         | Section 212 |       |       |        |         |       |       |       |      |      |      |      |    |      |    |      |    |      |   |         |     |   |    |       |    |   |   |   |   |   |   |
|                                          | (15615)                 | 15615       | 15620 | 15630 | 15640  | 15650   | 15660 | 15670 | 15688 |      |      |      |      |    |      |    |      |    |      |   |         |     |   |    |       |    |   |   |   |   |   |   |
| Homo sapiens chromosome 1 NC             | 000001.11: 11783698-... | (14727)     | T     | CATT  | AC     | C       | CAC   | TT    | G     | A    | T    | A    | A    | G  | C    | A  | A    | C  | C    | A | T       | T   | C | A  | A     | T  | C |   |   |   |   |   |
| SARS-CoV-2 Reference Genome Shuffle No.1 | (15157)                 |             | T     | G     | A      | T       | --    | C     | T     | A    | T    | T    | C    | A  | T    | A  | A    | A  | A    | C | C       | A   | T | G  | T     | G  | A | C | T | C |   |   |
|                                          |                         | Section 213 |       |       |        |         |       |       |       |      |      |      |      |    |      |    |      |    |      |   |         |     |   |    |       |    |   |   |   |   |   |   |
|                                          | (15689)                 | 15689       | 15700 | 15710 | 15720  | 15730   | 15740 | 15750 | 15762 |      |      |      |      |    |      |    |      |    |      |   |         |     |   |    |       |    |   |   |   |   |   |   |
| Homo sapiens chromosome 1 NC             | 000001.11: 11783698-... | (14801)     | A     | T     | T      | A       | T     | C     | A     | C    | T    | A    | A    | G  | C    | C  | C    | A  | T    | C | A       | C   | G | G  | G     | T  | G | C | A | T | C |   |
| SARS-CoV-2 Reference Genome Shuffle No.1 | (15223)                 |             | C     | T     | T      | G       | T     | A     | A     | G    | C    | A    | T    | T  | C    | G  | A    | T  | A    | T | A       | T   | A | T  | A     | T  | A | T | A | T | A |   |
|                                          |                         | Section 214 |       |       |        |         |       |       |       |      |      |      |      |    |      |    |      |    |      |   |         |     |   |    |       |    |   |   |   |   |   |   |
|                                          | (15763)                 | 15763       | 15770 | 15780 | 15790  | 15800   | 15810 | 15820 | 15836 |      |      |      |      |    |      |    |      |    |      |   |         |     |   |    |       |    |   |   |   |   |   |   |
| Homo sapiens chromosome 1 NC             | 000001.11: 11783698-... | (14873)     | G     | A     | C      | A       | A     | T     | T     | A    | A    | C    | A    | G  | T    | T  | G    | A  | A    | T | G       | T   | C | T  | C     | T  | G | A | C | T | C |   |
| SARS-CoV-2 Reference Genome Shuffle No.1 | (15291)                 |             | A     | A     | C      | T       | G     | C     | T     | G    | T    | T    | A    | A  | G    | C  | C    | G  | T    | A | T       | A   | T | A  | T     | A  | T | A | T | A | T |   |
|                                          |                         | Section 215 |       |       |        |         |       |       |       |      |      |      |      |    |      |    |      |    |      |   |         |     |   |    |       |    |   |   |   |   |   |   |
|                                          | (15837)                 | 15837       | 15850 | 15860 | 15870  | 15880   | 15890 | 15900 | 15910 |      |      |      |      |    |      |    |      |    |      |   |         |     |   |    |       |    |   |   |   |   |   |   |
| Homo sapiens chromosome 1 NC             | 000001.11: 11783698-... | (14945)     | C     | C     | C      | T       | --    | G     | T     | T    | G    | A    | C    | A  | T    | G  | T    | C  | C    | A | T       | G   | T | C  | C     | A  | T | G | T | C | C |   |
| SARS-CoV-2 Reference Genome Shuffle No.1 | (15355)                 |             | C     | C     | T      | T       | T     | G     | T     | A    | G    | T    | A    | C  | T    | A  | A    | T  | A    | T | A       | T   | A | T  | A     | T  | A | T | A | T | A |   |
|                                          |                         | Section 216 |       |       |        |         |       |       |       |      |      |      |      |    |      |    |      |    |      |   |         |     |   |    |       |    |   |   |   |   |   |   |
|                                          | (15911)                 | 15911       | 15920 | 15930 | 15940  | 15950   | 15960 | 15970 | 15984 |      |      |      |      |    |      |    |      |    |      |   |         |     |   |    |       |    |   |   |   |   |   |   |
| Homo sapiens chromosome 1 NC             | 000001.11: 11783698-... | (15018)     | T     | T     | G      | A       | G     | C     | C     | A    | C    | G    | T    | G  | T    | T  | T    | T  | T    | T | T       | T   | T | T  | T     | T  | T | T | T | T | T |   |
| SARS-CoV-2 Reference Genome Shuffle No.1 | (15428)                 |             | T     | T     | T      | T       | T     | T     | T     | T    | T    | T    | T    | T  | T    | T  | T    | T  | T    | T | T       | T   | T | T  | T     | T  | T | T | T | T | T |   |
|                                          |                         | Section 217 |       |       |        |         |       |       |       |      |      |      |      |    |      |    |      |    |      |   |         |     |   |    |       |    |   |   |   |   |   |   |
|                                          | (15985)                 | 15985       | 15990 | 16000 | 16010  | 16020   | 16030 | 16040 | 16058 |      |      |      |      |    |      |    |      |    |      |   |         |     |   |    |       |    |   |   |   |   |   |   |
| Homo sapiens chromosome 1 NC             | 000001.11: 11783698-... | (15090)     | A     | G     | G      | C       | T     | A     | C     | A    | G    | T    | G    | C  | A    | T  | T    | G  | G    | T | G       | C   | A | T  | C     | C  | A | G | T | C | C | T |
| SARS-CoV-2 Reference Genome Shuffle No.1 | (15500)                 |             | A     | T     | T      | C       | T     | A     | G     | T    | A    | T    | C    | A  | C    | A  | G    | T  | C    | A | T       | G   | T | T  | C     | T  | C | T | C | T | C | T |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                      |         |                                |                        |               |            |          |           |               |              |                    |             |         |      |       |        |     |
|------------------------------------------------------|---------|--------------------------------|------------------------|---------------|------------|----------|-----------|---------------|--------------|--------------------|-------------|---------|------|-------|--------|-----|
|                                                      |         | Section 218                    |                        |               |            |          |           |               |              |                    |             |         |      |       |        |     |
|                                                      | (16059) | 16059                          | 16070                  | 16080         | 16090      | 16100    | 16110     | 16120         | 16132        |                    |             |         |      |       |        |     |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (15163) | CAGCCTACCAAGTAGCTGGGACTACAGGCA | CGCGCCACCATGCCCCGGCTAA | TTT           | TTT        | GTATT    | TTTA      | GTAGA         | GAC          |                    |             |         |      |       |        |     |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (15571) | -AATCTACATAGTTGGT----          | TAAAGAC-CAAA           | CCAC          | TA----     | GTCTAA   | AA        | TAG           | GTCTATATA    | CGTAGATTG          |             |         |      |       |        |     |
|                                                      |         | Section 219                    |                        |               |            |          |           |               |              |                    |             |         |      |       |        |     |
|                                                      | (16133) | 16133                          | 16140                  | 16150         | 16160      | 16170    | 16180     | 16190         | 16206        |                    |             |         |      |       |        |     |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (15236) | GGGGTTT-TCAC                   | TATGTTGGA              | CAGGATGGTCTCA | AACTCC     | TGATCTCA | TGATC     | CACCCGCCTTGGC | CTCCC        | AAAG               |             |         |      |       |        |     |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (15633) | AAA                            | GTTGTCTG               | TACAA         | TTGAGAGG-- | GATTTCA  | TA----    | TGATCAAT      | TGAAC        | CT-----CTATTAAAG   |             |         |      |       |        |     |
|                                                      |         | Section 220                    |                        |               |            |          |           |               |              |                    |             |         |      |       |        |     |
|                                                      | (16207) | 16207                          | 16220                  | 16230         | 16240      | 16250    | 16260     | 16270         | 16280        |                    |             |         |      |       |        |     |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (15309) | TGCTGGGA                       | ATTATAGGCTTCAG         | CCACGCA       | CTGGCCTTTT | TTTTTT   | TAGTTCAT  | TATCACTTT     | AGATGCTACTCC | A                  |             |         |      |       |        |     |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (15689) | AGTAACT                        | AAAC                   | TTGTCA        | TCGG--     | ACTAAAG  | CCGACGAT  | CGTAAAG       | TAGCTTTTGC   | CCCTCCAAAGATATCCCT |             |         |      |       |        |     |
|                                                      |         | Section 221                    |                        |               |            |          |           |               |              |                    |             |         |      |       |        |     |
|                                                      | (16281) | 16281                          | 16290                  | 16300         | 16310      | 16320    | 16330     | 16340         | 16354        |                    |             |         |      |       |        |     |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (15383) | T-----                         | AACATA                 | -GCCAT        | FGT--      | TTAATA   | TA-AAAAT  | GGTAGGATT     | TCTCC        | CAGAA              | TATTGGCAAAA | AAAC    | C    | TGT   |        |     |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (15761) | TGTGTC                         | AACGTAC                | GCCCTG        | ATATA      | TTAATA   | CACAGACA  | GGTGAACAA     | TTTCAC       | GGGCTGTTGT         | CCCC        | AA      | GT   | CATTT |        |     |
|                                                      |         | Section 222                    |                        |               |            |          |           |               |              |                    |             |         |      |       |        |     |
|                                                      | (16355) | 16355                          | 16360                  | 16370         | 16380      | 16390    | 16400     | 16410         | 16428        |                    |             |         |      |       |        |     |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (15447) | CATCCCA                        | GAAAATG                | TGCCAA-       | TCCCGG     | GACTT-   | TCCTGT    | CCCTGG        | TGCACAC      | TGTCT              | TGCCA       | TACCTGA | GGC  | TG    |        |     |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (15835) | TAAAGAC                        | GGAATG                 | AAATA         | TGTTAAAAT  | GATATATA | GTAC      | GACCTGGGTTA   | TGAAAT       | TTCC               | TATTATG     | GCACC   |      |       |        |     |
|                                                      |         | Section 223                    |                        |               |            |          |           |               |              |                    |             |         |      |       |        |     |
|                                                      | (16429) | 16429                          | 16440                  | 16450         | 16460      | 16470    | 16480     | 16490         | 16502        |                    |             |         |      |       |        |     |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (15519) | TCTGAGAC                       | GCTGAGG                | GCTCAAT       | GCCAGG     | CTTCAGC  | TTCAA     | GGTGGGAGAG    | AAGTC        | CAAC               | CCACC       | CAT     | TTTC | TGT   |        |     |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (15909) | TTACA                          | AAACAC                 | GAAACC        | GCGTGT     | TCTTAT   | CTAT----  | TTAGC         | GGTTACTTTCT  | AAAAT              | CAAC        | GCGT    | C-T  | AAA   | TGT    |     |
|                                                      |         | Section 224                    |                        |               |            |          |           |               |              |                    |             |         |      |       |        |     |
|                                                      | (16503) | 16503                          | 16510                  | 16520         | 16530      | 16540    | 16550     | 16560         | 16576        |                    |             |         |      |       |        |     |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (15593) | TGGGGGA                        | ACC                    | TGGTCT        | TGTTGGCT   | GTGGC    | CAATG     | GTGATTCTCT    | TTCC         | TGGGAAT            | TTGGAACG    | GAG     | GCCT | TGT   | CCA    |     |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (15978) | -GGT                           | GGA                    | CGT           | TGTTTCT    | TCTAC    | GTAACTAAT | GT-TTATA      | TAA          | TTAT               | TG----      | TAGAA   | TAC  | GAG   | ---TTT | TTG |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                       |         |                  |               |              |                |                |              |            |              |               |         |          |       |      |     |    |      |
|-------------------------------------------------------|---------|------------------|---------------|--------------|----------------|----------------|--------------|------------|--------------|---------------|---------|----------|-------|------|-----|----|------|
| Section 225                                           |         |                  |               |              |                |                |              |            |              |               |         |          |       |      |     |    |      |
|                                                       | (16577) | 16577            | 16590         | 16600        | 16610          | 16620          | 16630        | 16640      | 16650        |               |         |          |       |      |     |    |      |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (15667) | TTAGCCTGGGGA     | AACTGGCTGGA   | ACTTGACACTCT | GCAACACTC      | AGGAGCAGG      | CAGGTGTGTG   | TGGAAAAGCA | TGGGT        |               |         |          |       |      |     |    |      |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (16042) | TAAAACTAGT       | AACTGTAAAGA   | TTACGGGCT    | AGATTTTC       | -----          | CTAGATGAA    | TGAAAACTGT | TG---        |               |         |          |       |      |     |    |      |
| Section 226                                           |         |                  |               |              |                |                |              |            |              |               |         |          |       |      |     |    |      |
|                                                       | (16651) | 16651            | 16660         | 16670        | 16680          | 16690          | 16700        | 16710      | 16724        |               |         |          |       |      |     |    |      |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (15741) | ATCAGGTC         | TC            | CCAG---      | ATGAAGCA       | CAGATGT        | GCAGTGGGAAG  | CGGAGATGG  | GGGACCTGTGTG | GCCCCAGAGGG   |         |          |       |      |     |    |      |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (16102) | -TAAGGTATC       | GAGTCAAC      | CTCGCAT      | AAAG-GTTT      | TACATTA        | C            | CACTATGG   | AAAATCATC--  | GCCCCAGACTT   |         |          |       |      |     |    |      |
| Section 227                                           |         |                  |               |              |                |                |              |            |              |               |         |          |       |      |     |    |      |
|                                                       | (16725) | 16725            | 16730         | 16740        | 16750          | 16760          | 16770        | 16780      | 16798        |               |         |          |       |      |     |    |      |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (15812) | AATGAGGGGAGGGCCT | TGCTTT        | TTGACCTCT    | TTCCAGTGCCTTG  | TGAGGTCTGAGGC  | CATCTCT      | CGATCT     | TGGGTT       |               |         |          |       |      |     |    |      |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (16172) | TATTA            | TA-----       | TTT          | TTATTGAGATT    | TTTTCAG        | ATATCCC      | TTTGCT     | TATTCAA      | CATGACATGAT-- | TCAAGTT |          |       |      |     |    |      |
| Section 228                                           |         |                  |               |              |                |                |              |            |              |               |         |          |       |      |     |    |      |
|                                                       | (16799) | 16799            | 16810         | 16820        | 16830          | 16840          | 16850        | 16860      | 16872        |               |         |          |       |      |     |    |      |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (15886) | CCCTGCCC         | TC            | TGGAATCT     | CTGTAGTAAATATC | -CCTCTTTT      | TGGGGT       | -GT        | TGTTTTTT     | TTTTTT        | TTGAGAT |          |       |      |     |    |      |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (16236) | GCTATAAA         | TC            | ---ACT       | ACTGATGATACAT  | CTGACGTCTTTT   | ATTACATAGT   | CA         | TATTTT       | CGCTTT        | AC      | TTGCGCC  |       |      |     |    |      |
| Section 229                                           |         |                  |               |              |                |                |              |            |              |               |         |          |       |      |     |    |      |
|                                                       | (16873) | 16873            | 16880         | 16890        | 16900          | 16910          | 16920        | 16930      | 16946        |               |         |          |       |      |     |    |      |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (15958) | GGA              | GTCTTGCC      | ACTGAGG      | CTGGACTG       | CAGCGGCACCATCT | TCGGCTCAC    | TGCAACCTC  | CGCC         | TC            | TTGGGT  |          |       |      |     |    |      |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (16307) | GGA              | CAGAGGTGTGT   | ATTCAAG      | TCACCGCT       | CACCTG----     | ATT          | TGAAAAATT  | TACAAATC     | AGCC          | ATTACCT |          |       |      |     |    |      |
| Section 230                                           |         |                  |               |              |                |                |              |            |              |               |         |          |       |      |     |    |      |
|                                                       | (16947) | 16947            | 16960         | 16970        | 16980          | 16990          | 17000        | 17010      | 17020        |               |         |          |       |      |     |    |      |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (16032) | C                | CAAGAGATTCTCT | CGGGCTCAG    | CTCTCTGAG-     | TAGCTGGGACT    | TACAGCCGT    | GCACCA     | CCACAC       | CTGG--        | CTAAT   |          |       |      |     |    |      |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (16377) | ACGTC            | ACTAGCAC      | -TGGTGCTTCAT | CTTCAAC        | TAGTTAAGTATC   | CGGCCCGGGTGG | CTAGAT     | CG           | AAAA          | TAAA    |          |       |      |     |    |      |
| Section 231                                           |         |                  |               |              |                |                |              |            |              |               |         |          |       |      |     |    |      |
|                                                       | (17021) | 17021            | 17030         | 17040        | 17050          | 17060          | 17070        | 17080      | 17094        |               |         |          |       |      |     |    |      |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (16103) | T                | TTTGT-AT      | TTT          | TAGTAGAGAC     | G-----         | GGGT         | TT         | CGCTAT       | GTTGG         | C       | CAGGCAG  | GTCTC | AACT | CCT | G  | ACC  |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (16450) | C                | TTTATCAG      | TTG          | TAGTAGAGC      | CTTACAATAT     | GATA         | TT         | ATT          | TAT           | CACAT   | CTTCATTC | GTCTC | GTT  | CT  | TG | CAAT |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                                                                   |                                                                                                                                                                                                                                                                                                        |             |       |       |       |       |       |       |       |  |  |  |  |  |  |  |  |
|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|--|--|--|--|--|--|--|--|
|                                                                                                   |                                                                                                                                                                                                                                                                                                        | Section 232 |       |       |       |       |       |       |       |  |  |  |  |  |  |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (17095) (16167) (16524)                                                                                                                                                                                                                                                                                | 17095       | 17100 | 17110 | 17120 | 17130 | 17140 | 17150 | 17168 |  |  |  |  |  |  |  |  |
|                                                                                                   | T CAG GTG ATCT G C C T GCCT G G C C T C C C A A A G T G T T G G G G T T A C A --- G G T G T G A G C C A C C G C G C C C A G A C C C C<br>G C T T G T G T T A C C C A T T T T A C T G C A A T A G A T C T T A C C G T A T C C A A A A G A G C T G G A T A C A G T T A C C A C A C C C A                 |             |       |       |       |       |       |       |       |  |  |  |  |  |  |  |  |
|                                                                                                   |                                                                                                                                                                                                                                                                                                        | Section 233 |       |       |       |       |       |       |       |  |  |  |  |  |  |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (17169) (16238) (16598)                                                                                                                                                                                                                                                                                | 17169       | 17180 | 17190 | 17200 | 17210 | 17220 | 17230 | 17242 |  |  |  |  |  |  |  |  |
|                                                                                                   | T C T T T C G T T T T T A A A G A A A A G A A T A A G G C C A A G C A G G C T A A G G G C A C A G C C A G G C A G A G G A A C A A A A A G C T A G G G<br>T - T G T C T T G T T T A T A A T T T T A T C G A T G T C T T T A G T A A T T T G G A A G A T A C A T G T A --- A A C T G A A T T C A A G G G |             |       |       |       |       |       |       |       |  |  |  |  |  |  |  |  |
|                                                                                                   |                                                                                                                                                                                                                                                                                                        | Section 234 |       |       |       |       |       |       |       |  |  |  |  |  |  |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (17243) (16312) (16667)                                                                                                                                                                                                                                                                                | 17243       | 17250 | 17260 | 17270 | 17280 | 17290 | 17300 | 17316 |  |  |  |  |  |  |  |  |
|                                                                                                   | G T C G A T G G T G G C A G G C C C A G G A G G G A G T G G G T G A T A C A A A A G G A G C A A G G A C A T G G T G C A G T T C A C C T C T G C A<br>G A G G C T A C C C A A T G --- A T A A G C C G A C T C G C A C T C A C T T A A G G - G C G A C T A G - T G G T A T C G T - - A A G T A - G A G   |             |       |       |       |       |       |       |       |  |  |  |  |  |  |  |  |
|                                                                                                   |                                                                                                                                                                                                                                                                                                        | Section 235 |       |       |       |       |       |       |       |  |  |  |  |  |  |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (17317) (16386) (16732)                                                                                                                                                                                                                                                                                | 17317       | 17330 | 17340 | 17350 | 17360 | 17370 | 17380 | 17390 |  |  |  |  |  |  |  |  |
|                                                                                                   | T G T C C T T C A T C C A G C A T G G A C C C A T G A G T G C C C C T G A T C A C T G T G T C C T G A A C C G A A C A C C G A C A G G C T C T G<br>T T T G C G T A A T A G A T T C T G G T T T A A T T A T T G A C G G - G A T A A - - - - - G A A A C A A T T A C T G A G G G G G C A C T A           |             |       |       |       |       |       |       |       |  |  |  |  |  |  |  |  |
|                                                                                                   |                                                                                                                                                                                                                                                                                                        | Section 236 |       |       |       |       |       |       |       |  |  |  |  |  |  |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (17391) (16460) (16796)                                                                                                                                                                                                                                                                                | 17391       | 17400 | 17410 | 17420 | 17430 | 17440 | 17450 | 17464 |  |  |  |  |  |  |  |  |
|                                                                                                   | G G C A T C T C A G C C T C C T A G C T C C A T C C C C G C A C C A G G A T G A T C A G C C A C T C A C C T - G C C A C A C A G A T G T C A A<br>G A C A A C - - - - - C T T G C T C A T T C T A T A C A A G G G A A A T C A C T C C G C T G T C C A A A T C G C T A C T C C T A - G T C T C           |             |       |       |       |       |       |       |       |  |  |  |  |  |  |  |  |
|                                                                                                   |                                                                                                                                                                                                                                                                                                        | Section 237 |       |       |       |       |       |       |       |  |  |  |  |  |  |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (17465) (16533) (16861)                                                                                                                                                                                                                                                                                | 17465       | 17470 | 17480 | 17490 | 17500 | 17510 | 17520 | 17538 |  |  |  |  |  |  |  |  |
|                                                                                                   | A G T A G T C A C C A A A C T C A C T T C G G A T G T G C T T C A C C A G G T C A C T G C G T A G T T G A A G C C T C C T C C T C C T C T T C C<br>T A T G G T A A C G T T G G C A A A T C T G G G T A T A A T A A T C T T A T T A C - - - G C C T A A T G A A A G C C A C T A T T A A A T G A T A C   |             |       |       |       |       |       |       |       |  |  |  |  |  |  |  |  |
|                                                                                                   |                                                                                                                                                                                                                                                                                                        | Section 238 |       |       |       |       |       |       |       |  |  |  |  |  |  |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (17539) (16607) (16932)                                                                                                                                                                                                                                                                                | 17539       | 17550 | 17560 | 17570 | 17580 | 17590 | 17600 | 17612 |  |  |  |  |  |  |  |  |
|                                                                                                   | C A C T G T G C A C C T A T T G G G T C T G C A G G G T T G G T G G A G G T C A T A G T C A C T G G T C T C A C C C A A C C T C A G - - A G A C<br>A A T C T G T G A A T A A A T A T A T G C G C A A A A C A C C T T A G T - - A T A G G C A G C C G G G A A A A A A A A C T T C A A C G T A G C C     |             |       |       |       |       |       |       |       |  |  |  |  |  |  |  |  |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                      |         |             |            |        |         |          |          |           |         |          |                |
|------------------------------------------------------|---------|-------------|------------|--------|---------|----------|----------|-----------|---------|----------|----------------|
|                                                      |         | Section 239 |            |        |         |          |          |           |         |          |                |
|                                                      | (17613) | 17613       | 17620      | 17630  | 17640   | 17650    | 17660    | 17670     | 17686   |          |                |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (16679) | CCT         | TTCTGTTCC  | CTTAC  | CTAGGCC | CGACACC  | CAGGACT  | GCGAGTCCC | TGAAAGG | CAGAAACT | TCA            |
| SARS-CoV-2 Reference Genome Shuffle No.1 (17004)     |         | CTA         | TTCTGTTCT  | TGTTT  | CTATAA  | CTGTAA   | AGTCAAGG | --GCG     | TAGATT  | TCGAA    | --CATAACTA     |
|                                                      |         | Section 240 |            |        |         |          |          |           |         |          |                |
|                                                      | (17687) | 17687       | 17700      | 17710  | 17720   | 17730    | 17740    | 17750     | 17760   |          |                |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (16753) | AGGT        | TTGGTTC    | CGTC   | TCTTTC  | TAGCACTT | GGTAAG   | ACAGCAG   | GAGGG   | AAAAA    | AAGCAG         |
| SARS-CoV-2 Reference Genome Shuffle No.1 (17071)     |         | TGAA        | TTAGTTAACT | TCTTTC | TACTCT  | CTTATC   | TATTAAT  | ATCAGT    | CTA     | AAAT     | ACTCTGAGGA     |
|                                                      |         | Section 241 |            |        |         |          |          |           |         |          |                |
|                                                      | (17761) | 17761       | 17770      | 17780  | 17790   | 17800    | 17810    | 17820     | 17834   |          |                |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (16826) | CACTG       | CATGCT     | GACCT  | GTGCT   | GCGG     | GGTGAG   | AAATAG    | GAGACC  | ACCG     | TGCTTCTC       |
| SARS-CoV-2 Reference Genome Shuffle No.1 (17143)     |         | ATAAG       | ATCTCT     | TAGGCG | GAACT   | TAGGAG   | CACT     | AGGAAG    | ACGT    | TGTAAG   | ACTTGACGC      |
|                                                      |         | Section 242 |            |        |         |          |          |           |         |          |                |
|                                                      | (17835) | 17835       | 17840      | 17850  | 17860   | 17870    | 17880    | 17890     | 17908   |          |                |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (16900) | GAGAG       | CCCTTCC    | TACTTC | TACC    | TGGG     | CATGCC   | TGCC      | ACCCT   | CTCC     | CATCCACG       |
| SARS-CoV-2 Reference Genome Shuffle No.1 (17216)     |         | CAATA       | CTTTGCTT   | TAAACA | TATA    | TGAT     | CCGCAG   | TAGGA     | AGTA    | CTGG     | CGATCTATGTTTGA |
|                                                      |         | Section 243 |            |        |         |          |          |           |         |          |                |
|                                                      | (17909) | 17909       | 17920      | 17930  | 17940   | 17950    | 17960    | 17970     | 17982   |          |                |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (16968) | TG          | CCCTG      | GGAGAA | TTTT    | CTACT    | CATCTCA  | AGTGAAG   | -----   | GGGTCTT  | GTTGGTAGGG     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (17290)     |         | AT          | CCCTG      | TTC--- | TTTAC   | GACTAA   | AGTTACT  | TGAAG     | TTTAA   | GAA      | TTTAGAAT       |
|                                                      |         | Section 244 |            |        |         |          |          |           |         |          |                |
|                                                      | (17983) | 17983       | 17990      | 18000  | 18010   | 18020    | 18030    | 18040     | 18056   |          |                |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (17034) | TAG         | GATCCC     | ACCC   | ATCAG   | GCTCCCTC | TTCC     | ACTCTT    | AGGTGG  | CTGACA   | ACAGCGG        |
| SARS-CoV-2 Reference Genome Shuffle No.1 (17361)     |         | ATG         | CAGAGT     | ACCC   | GGAAG   | TTTATGCG | TACCA    | AAATG     | GCAC    | CTGT     | AGAGT          |
|                                                      |         | Section 245 |            |        |         |          |          |           |         |          |                |
|                                                      | (18057) | 18057       | 18070      | 18080  | 18090   | 18100    | 18110    | 18120     | 18130   |          |                |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (17106) | CCG         | GCTATTCT   | CACTC  | CTGGA   | TACTCT   | GTTACT   | CTGTG     | ATTGGG  | CCAAGT   | -----          |
| SARS-CoV-2 Reference Genome Shuffle No.1 (17435)     |         | AAAG        | TGGGCTC    | CTCAG  | CAGGC   | TACAA    | ATAAT    | CGAA      | GTGTG   | GTTA     | CCAAGT         |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                                                                   |         |       |       |        |       |       |       |       |       |             |      |     |      |      |     |     |    |    |      |    |     |    |     |     |      |
|---------------------------------------------------------------------------------------------------|---------|-------|-------|--------|-------|-------|-------|-------|-------|-------------|------|-----|------|------|-----|-----|----|----|------|----|-----|----|-----|-----|------|
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (18131) | 18131 | 18140 | 18150  | 18160 | 18170 | 18180 | 18190 | 18204 | Section 246 |      |     |      |      |     |     |    |    |      |    |     |    |     |     |      |
|                                                                                                   | (17175) | C     | GATG  | CAGTGT | GTGT  | AGGC  | AAGG  | CAGAG | GGGT  | TATC        | AGGC | CGC | GA   | CTGC | AT  | TCC | TG | AC | GGAA | A  | CTC | CT | TAT | TGT | CGAG |
|                                                                                                   | (17509) | -     | GAT   | -      | CA    | CCC   | GT    | T     | CTA   | C           | GGT  | G   | ACTC | G    | CTC | T   | AC | G  | AG   | GC | T   | G  | TGT | G   | TTT  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (18205) | 18205 | 18210 | 18220  | 18230 | 18240 | 18250 | 18260 | 18278 | Section 247 |      |     |      |      |     |     |    |    |      |    |     |    |     |     |      |
|                                                                                                   | (17248) | G     | T     | C      | A     | A     | G     | A     | GGT   | G           | A    | A   | G    | GT   | G   | G   | C  | T  | G    | T  | G   | T  | G   | T   | G    |
|                                                                                                   | (17581) | C     | T     | T      | A     | G     | A     | C     | A     | --          | G    | T   | T    | A    | A   | G   | T  | G  | C    | T  | G   | T  | G   | C   | T    |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (18279) | 18279 | 18290 | 18300  | 18310 | 18320 | 18330 | 18340 | 18352 | Section 248 |      |     |      |      |     |     |    |    |      |    |     |    |     |     |      |
|                                                                                                   | (17322) | T     | A     | C      | T     | G     | G     | C     | G     | G           | G    | A   | T    | C    | C   | T   | G  | C  | T    | G  | C   | A  | T   | T   | C    |
|                                                                                                   | (17651) | T     | --    | T      | A     | A     | A     | A     | G     | A           | T    | A   | A    | C    | A   | A   | T  | T  | G    | T  | G   | C  | T   | G   | T    |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (18353) | 18353 | 18360 | 18370  | 18380 | 18390 | 18400 | 18410 | 18426 | Section 249 |      |     |      |      |     |     |    |    |      |    |     |    |     |     |      |
|                                                                                                   | (17393) | C     | C     | A      | A     | G     | T     | T     | C     | A           | G    | T   | G    | C    | C   | T   | C  | C  | A    | G  | T   | G  | C   | T   | G    |
|                                                                                                   | (17719) | C     | G     | ----   | C     | A     | G     | G     | C     | -           | A    | C   | A    | T    | A   | G   | G  | A  | G    | C  | G   | C  | T   | G   | G    |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (18427) | 18427 | 18440 | 18450  | 18460 | 18470 | 18480 | 18490 | 18500 | Section 250 |      |     |      |      |     |     |    |    |      |    |     |    |     |     |      |
|                                                                                                   | (17467) | C     | C     | C      | G     | A     | G     | C     | G     | C           | A    | T   | G    | A    | T   | G   | T  | T  | C    | T  | T   | G  | T   | G   | C    |
|                                                                                                   | (17786) | T     | A     | T      | G     | -     | A     | A     | A     | T           | A    | A   | T    | A    | T   | A   | G  | A  | A    | T  | A   | T  | A   | G   | A    |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (18501) | 18501 | 18510 | 18520  | 18530 | 18540 | 18550 | 18560 | 18574 | Section 251 |      |     |      |      |     |     |    |    |      |    |     |    |     |     |      |
|                                                                                                   | (17534) | C     | A     | G      | G     | C     | G     | C     | T     | G           | A    | C   | G    | G    | C   | A   | G  | T  | C    | C  | A   | G  | T   | G   | C    |
|                                                                                                   | (17855) | A     | A     | A      | C     | A     | T     | A     | A     | A           | C    | A   | C    | T    | A   | T   | T  | T  | A    | A  | T   | T  | A   | A   | T    |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (18575) | 18575 | 18580 | 18590  | 18600 | 18610 | 18620 | 18630 | 18648 | Section 252 |      |     |      |      |     |     |    |    |      |    |     |    |     |     |      |
|                                                                                                   | (17606) | C     | A     | T      | C     | A     | T     | G     | A     | G           | G    | A   | G    | G    | T   | C   | A  | C  | C    | T  | G   | C  | A   | G   | G    |
|                                                                                                   | (17929) | G     | A     | T      | A     | C     | C     | T     | A     | G           | G    | A   | T    | A    | T   | T   | A  | G  | A    | T  | A   | G  | A   | T   | A    |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                                                                   |                                                                                                                                                            | Section 253 |       |       |       |       |       |       |       |  |  |
|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|--|--|
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (18649) (17678) (18003)                                                                                                                                    | 18649       | 18660 | 18670 | 18680 | 18690 | 18700 | 18710 | 18722 |  |  |
|                                                                                                   | GCCA--CCTGCTGCCATC---CGGTCAAACTGTAGGGGGTTTGTTCCTGAAGAGAGGTTTCAGGAGAAATAC<br>ACCAATTTCTGCTAAAATCTACTGATCTAACTGTCTGCGAGTAGGACATCCTACGTTTTC----ATCATTACA      |             |       |       |       |       |       |       |       |  |  |
| Section 254                                                                                       |                                                                                                                                                            |             |       |       |       |       |       |       |       |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (18723) (17747) (18073)                                                                                                                                    | 18723       | 18730 | 18740 | 18750 | 18760 | 18770 | 18780 | 18796 |  |  |
|                                                                                                   | ATCCGTCCTACTGCTTCCCATGGGCCCCGGGAGTTTGAAGAAGCATCAATGAAGGTGTGGAGACAGACCA--ATCAG<br>ATTCTCTCTAACTTGAGCATGGTGTGTGCTTATTTGACGTTTCAAATGCAACTCACTTAAGTATCACCATACT |             |       |       |       |       |       |       |       |  |  |
| Section 255                                                                                       |                                                                                                                                                            |             |       |       |       |       |       |       |       |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (18797) (17819) (18147)                                                                                                                                    | 18797       | 18810 | 18820 | 18830 | 18840 | 18850 | 18860 | 18870 |  |  |
|                                                                                                   | CGTTTCATATCTGCTTCTTCTGCTA--TAGCTGTGTGATCTTGGGTACATTACTTAATCTCTGTGAGTTCCT<br>CGCATCATGGGCTGTCTTAAGAAAGTTGGGGTAGAAATCCAAGTAGTGAGACCCCCTGTATTTGACGCCGACATAG   |             |       |       |       |       |       |       |       |  |  |
| Section 256                                                                                       |                                                                                                                                                            |             |       |       |       |       |       |       |       |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (18871) (17889) (18221)                                                                                                                                    | 18871       | 18880 | 18890 | 18900 | 18910 | 18920 | 18930 | 18944 |  |  |
|                                                                                                   | GTTTCCTTATTTTATA-AGACACGGCAGATAGTAGTACCACCTTCATTAA-TAACACTA--GGATGCTGGCGCTGG<br>TCTACCTGTTCATTTAGTGTGTGAAGTCTGTCTATCTGTCTACCTTCCTAACACAACCTGTCAGATGAGCGCGA |             |       |       |       |       |       |       |       |  |  |
| Section 257                                                                                       |                                                                                                                                                            |             |       |       |       |       |       |       |       |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (18945) (17959) (18295)                                                                                                                                    | 18945       | 18950 | 18960 | 18970 | 18980 | 18990 | 19000 | 19018 |  |  |
|                                                                                                   | TGGCTCACGCCTGTA-ATCCACAGCACTTCAGGAGGC---TGAAATGAGGTGGATCACTTGAGGTCAGGAGTCC<br>ATATACAAAACTCAAGATCCAAATTAGTATAAAATTACCTTGAAATTTGGTGCCCAT-CTCAACGTCAGCTGTACC |             |       |       |       |       |       |       |       |  |  |
| Section 258                                                                                       |                                                                                                                                                            |             |       |       |       |       |       |       |       |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (19019) (18028) (18368)                                                                                                                                    | 19019       | 19030 | 19040 | 19050 | 19060 | 19070 | 19080 | 19092 |  |  |
|                                                                                                   | AGACCGC---CTGGCCAA--CATAGTGAAACCT--CATCTCTACTTAAATA-----CAAAAATT--AGCTG<br>GCATGTAATATGTCCGAATCTTGGCGTTGTTCATCTCTATTTAATAAATCCTTGGCATGTATTCAATTG           |             |       |       |       |       |       |       |       |  |  |
| Section 259                                                                                       |                                                                                                                                                            |             |       |       |       |       |       |       |       |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-...<br>SARS-CoV-2 Reference Genome Shuffle No.1 | (19093) (18086) (18442)                                                                                                                                    | 19093       | 19100 | 19110 | 19120 | 19130 | 19140 | 19150 | 19166 |  |  |
|                                                                                                   | GGTGTGGTTGG--TGGGCACCTGTAATCCCACTGCTTGAAGGCAGGAGGAGAAATTGCTTGAGCCAGGAGG<br>GTTCTGTTTACCCTGGGCACGTAAGATGTATGCTAACATTGTAATCAACAAGGTACGTT--TTGAGC--GGA--      |             |       |       |       |       |       |       |       |  |  |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                      |         |                   |                  |         |         |          |            |         |              |
|------------------------------------------------------|---------|-------------------|------------------|---------|---------|----------|------------|---------|--------------|
|                                                      |         | Section 260       |                  |         |         |          |            |         |              |
|                                                      | (19167) | 19167             |                  | 19180   |         | 19190    |            | 19200   |              |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (18158) | CAGAGGTTGCAATGAGC | CAAGATCACACCACTG | CAC     | TCAGGCC | TGGGCCAC | AGAATGAGAC | TC      | TGTC         |
| SARS-CoV-2 Reference Genome Shuffle No.1 (18510)     | (18510) | CAGAGGTTGCAATGAGC | CAAGATCACACCACTG | CAC     | TCAGGCC | TGGGCCAC | AGAATGAGAC | TC      | TGTC         |
|                                                      |         | Section 261       |                  |         |         |          |            |         |              |
|                                                      | (19241) | 19241             |                  | 19250   |         | 19260    |            | 19270   |              |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (18232) | AAAAAA            | AAAAAA           | AAAA    | AAGCAAC | ACAACAA  | CAAA       | AAACCAT | AACACT       |
| SARS-CoV-2 Reference Genome Shuffle No.1 (18580)     | (18580) | AAAAAA            | AAAAAA           | AAAA    | AAGCAAC | ACAACAA  | CAAA       | AAACCAT | AACACT       |
|                                                      |         | Section 262       |                  |         |         |          |            |         |              |
|                                                      | (19315) | 19315             | 19320            |         | 19330   |          | 19340      |         | 19350        |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (18306) | CACAGAACTT        | AGACAGTG         | CC      | TGGTGT  | ACAAAC   | C          | GAA     | TACTCAGTATAT |
| SARS-CoV-2 Reference Genome Shuffle No.1 (18654)     | (18654) | CACAGAACTT        | AGACAGTG         | CC      | TGGTGT  | ACAAAC   | C          | GAA     | TACTCAGTATAT |
|                                                      |         | Section 263       |                  |         |         |          |            |         |              |
|                                                      | (19389) | 19389             |                  | 19400   |         | 19410    |            | 19420   |              |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (18377) | ATTACAGAGG        | TAA              | GACACAA | CAACAG  | CC       | TATCATT    | TTTGT   | TGAGAGC      |
| SARS-CoV-2 Reference Genome Shuffle No.1 (18718)     | (18718) | ATTACAGAGG        | TAA              | GACACAA | CAACAG  | CC       | TATCATT    | TTTGT   | TGAGAGC      |
|                                                      |         | Section 264       |                  |         |         |          |            |         |              |
|                                                      | (19463) | 19463             |                  | 19470   |         | 19480    |            | 19490   |              |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (18444) | AGCGCT            | TGC              | CTGT    | TTAT    | TATCT    | CAGG       | TGAGTTA | AGACAT       |
| SARS-CoV-2 Reference Genome Shuffle No.1 (18791)     | (18791) | AGCGCT            | TGC              | CTGT    | TTAT    | TATCT    | CAGG       | TGAGTTA | AGACAT       |
|                                                      |         | Section 265       |                  |         |         |          |            |         |              |
|                                                      | (19537) | 19537             |                  | 19550   |         | 19560    |            | 19570   |              |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (18516) | CAGCA             | CAGCCT           | CGCT    | GTAG    | GAAC     | AGTTAGAAA  | GAGG    | TCA          |
| SARS-CoV-2 Reference Genome Shuffle No.1 (18865)     | (18865) | CAGCA             | CAGCCT           | CGCT    | GTAG    | GAAC     | AGTTAGAAA  | GAGG    | TCA          |
|                                                      |         | Section 266       |                  |         |         |          |            |         |              |
|                                                      | (19611) | 19611             |                  | 19620   |         | 19630    |            | 19640   |              |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (18589) | GCCCTG            | TG               | CAGC    | AGCT    | TACAGT   | TAT        | GCAG    | AC           |
| SARS-CoV-2 Reference Genome Shuffle No.1 (18939)     | (18939) | GCCCTG            | TG               | CAGC    | AGCT    | TACAGT   | TAT        | GCAG    | AC           |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                       |  |             |       |       |       |       |       |       |       |       |     |     |    |     |     |    |     |       |     |     |    |    |       |    |     |    |     |      |    |     |    |      |    |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------------------------------------|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-----|----|-----|-----|----|-----|-------|-----|-----|----|----|-------|----|-----|----|-----|------|----|-----|----|------|----|---|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                                       |  | Section 267 |       |       |       |       |       |       |       |       |     |     |    |     |     |    |     |       |     |     |    |    |       |    |     |    |     |      |    |     |    |      |    |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                                       |  | (19685)     | 19685 | 19690 | 19700 | 19710 | 19720 | 19730 | 19740 | 19758 |     |     |    |     |     |    |     |       |     |     |    |    |       |    |     |    |     |      |    |     |    |      |    |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... |  | (18662)     | G     | TGCA  | -CGA  | GTA   | CTT   | GT    | GT    | TACA  | AGC | TAT | CA | ACG | GT  | GT | ATT | TTAAA | CAT | TCC | T  | T  | GT    | GC | A   | TT | TAA | ACTT | CA | AAA | A  | C    | T  |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SARS-CoV-2 Reference Genome Shuffle No.1              |  | (19007)     | C     | TGCA  | T     | CT    | A     | CCC   | G     | T     | CA  | G   | T  | CC  | CTT | T  | CT  | CT    | ACG | TA  | -- | AG | TTAAA | AG | TCC | A  | T   | ---  | A  | ATT | GT | ACTT | AG | A | C | A   | T | C | G |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                                       |  | Section 268 |       |       |       |       |       |       |       |       |     |     |    |     |     |    |     |       |     |     |    |    |       |    |     |    |     |      |    |     |    |      |    |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                                       |  | (19759)     | 19759 | 19770 | 19780 | 19790 | 19800 | 19810 | 19820 | 19832 |     |     |    |     |     |    |     |       |     |     |    |    |       |    |     |    |     |      |    |     |    |      |    |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... |  | (18735)     | T     | GGG   | AGT   | GAC   | AC    | GT    | G     | A     | G   | A   | C  | GT  | G   | C  | A   | T     | A   | C   | A  | G  | G     | C  | A   | T  | A   | A    | A  | A   | A  | A    | A  | A | C | --- | T | G | C | A | A | T | T | C | A | T | G | A | A | G |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SARS-CoV-2 Reference Genome Shuffle No.1              |  | (19074)     | T     | AAT   | AGT   | A     | G     | T     | T     | A     | T   | C   | A  | A   | T   | A  | A   | G     | A   | G   | A  | G  | A     | T  | T   | T  | T   | C    | C  | --- | A  | C    | T  | T | A | T   | A | A | C | G | G | A | G | C | A | T | G | T | T | G | C | A | A | T | T | C | A | A | T |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                                       |  | Section 269 |       |       |       |       |       |       |       |       |     |     |    |     |     |    |     |       |     |     |    |    |       |    |     |    |     |      |    |     |    |      |    |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                                       |  | (19833)     | 19833 | 19840 | 19850 | 19860 | 19870 | 19880 | 19890 | 19906 |     |     |    |     |     |    |     |       |     |     |    |    |       |    |     |    |     |      |    |     |    |      |    |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... |  | (18805)     | T     | G     | C     | T     | A     | A     | T     | G     | T   | A   | A  | T   | T   | C  | A   | G     | T   | T   | C  | A  | A     | G  | A   | A  | G   | C    | A  | T   | A  | A    | A  | A | A | A   | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|  |  |  |  |  |  |  |  |  |  |             |
|--|--|--|--|--|--|--|--|--|--|-------------|
|  |  |  |  |  |  |  |  |  |  | Section 274 |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |
|  |  |  |  |  |  |  |  |  |  |             |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                       |         |            |        |       |        |        |        |         |       |         |          |        |         |             |          |         |       |       |       |      |       |       |     |
|-------------------------------------------------------|---------|------------|--------|-------|--------|--------|--------|---------|-------|---------|----------|--------|---------|-------------|----------|---------|-------|-------|-------|------|-------|-------|-----|
|                                                       |         |            |        |       |        |        |        |         |       |         |          |        |         | Section 281 |          |         |       |       |       |      |       |       |     |
|                                                       | (20721) | 20721      | 20730  | 20740 | 20750  | 20760  | 20770  | 20780   | 20794 |         |          |        |         |             |          |         |       |       |       |      |       |       |     |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (19663) | GCAGCCCCC  | ACCCG  | GCAC  | TGCAAC | ATGCT  | CCTC   | GGTGA   | CAGCT | ACCTGAT | TGGAAG   | GTGGC  | ACAGAGG | ACCTCA      | C        |         |       |       |       |      |       |       |     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (19994)      |         | GAACTAAAT  | AATAAG | TTTTT | CTCTA  | ATTCT  | ATCG   | GGTGA   | ----  | ACCCG   | GTCG     | ---    | GTGA    | -AGA        | ATTAA    | ACCTTAA |       |       |       |      |       |       |     |
|                                                       |         |            |        |       |        |        |        |         |       |         |          |        |         | Section 282 |          |         |       |       |       |      |       |       |     |
|                                                       | (20795) | 20795      | 20800  | 20810 | 20820  | 20830  | 20840  | 20850   | 20868 |         |          |        |         |             |          |         |       |       |       |      |       |       |     |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (19737) | GCTGC      | -CGAC  | CTGC  | CGAGG  | CCC    | A      | TATT    | CC    | TAGCGA  | GGGG     | CAG    | TAGT    | TGCC        | CAGC     | TGGG    | AGG   | ACCC  | TGGCT | TTT  | CGA   |       |     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (20059)      |         | TCTTAA     | CGAG   | CGC   | CGAG   | CCC    | -      | TATT    | GT    | TACTAC  | GTGT     | CGT    | TGT     | TTTT        | CA       | --      | TGTT  | ATA   | ACA   | -T   | TACAA | TT    | CGT |
|                                                       |         |            |        |       |        |        |        |         |       |         |          |        |         | Section 283 |          |         |       |       |       |      |       |       |     |
|                                                       | (20869) | 20869      | 20880  | 20890 | 20900  | 20910  | 20920  | 20930   | 20942 |         |          |        |         |             |          |         |       |       |       |      |       |       |     |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (19810) | TGGTCCAT   | CTCTGT | CAGC  | T      | CAG    | GCCCCA | GAG     | TGC   | GTGGG   | GAGGG    | AACAG  | AGGCACC | T           | TCCC     | CAG     | CGGGT | GTGTT | C     |      |       |       |     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (20129)      |         | ATCTGGC    | TGTGAG | GT    | TACAT  | TAT    | G      | TAAAT   | GAGAT | -       | GTGGT    | GA     | CTC     | AACAA       | -----    | TATGA   | CAG   | ----- | GATAC | C    |       |       |     |
|                                                       |         |            |        |       |        |        |        |         |       |         |          |        |         | Section 284 |          |         |       |       |       |      |       |       |     |
|                                                       | (20943) | 20943      | 20950  | 20960 | 20970  | 20980  | 20990  | 21000   | 21016 |         |          |        |         |             |          |         |       |       |       |      |       |       |     |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (19884) | AACTGG     | GCGG   | AGCT  | G      | CA     | CAA    | AGGAAGA | GG    | CTTG    | AGCTCCAG | CCAG   | CA      | CA          | AGG      | GGG     | CGGG  | GGG   | CAAG  | GCT  | TCC   | AG    |     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (20191)      |         | TCCTGG     | AATA   | ATC   | -      | GAG    | GTG    | AGGAAGA | TA    | CTTG    | -----    | CCAG   | TG      | CGAG        | T        | GAT     | C     | CAG   | --    | CAAG | ACAT  | TATAT |     |
|                                                       |         |            |        |       |        |        |        |         |       |         |          |        |         | Section 285 |          |         |       |       |       |      |       |       |     |
|                                                       | (21017) | 21017      | 21030  | 21040 | 21050  | 21060  | 21070  | 21080   | 21090 |         |          |        |         |             |          |         |       |       |       |      |       |       |     |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (19958) | GCGAGGAGGG | AGGG   | CTGAG | ----   | GCTCT  | AGT    | AAG     | GGAGG | CGGAT   | TGGA     | --     | AGGAGGG | -GG         | CTC      | AGGG    | GG    | CAG   | AG    |      |       |       |     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (20254)      |         | TCAA       | ATTCCA | ATAA  | CGGAG  | TCGT   | GCCT   | GTC     | AAGAG | CAGC    | CGCC     | TAC    | ACT     | AC          | GACATA   | GGG     | CCA   | ATT   | GACA  | AT   |       |       |     |
|                                                       |         |            |        |       |        |        |        |         |       |         |          |        |         | Section 286 |          |         |       |       |       |      |       |       |     |
|                                                       | (21091) | 21091      | 21100  | 21110 | 21120  | 21130  | 21140  | 21150   | 21164 |         |          |        |         |             |          |         |       |       |       |      |       |       |     |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (20025) | ACTG       | CAGGGG | TTGG  | TGG    | AGATGA | GGC    | CA      | ACAGG | GTTT    | AGG      | ATACC  | AGAT    | C           | ACCCTCCA | GAG     | AA    | AGG   | AACA  | GCT  |       |       |     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (20328)      |         | ATTAC      | TATC   | -TC   | GGCAC  | AGGATT | GGC    | --      | ATAGG | -GTTT   | TAAG     | CATACC | TAAT    | G           | AAAACATT | GAT     | AA    | T     | AGTT  | GCT  |       |       |     |
|                                                       |         |            |        |       |        |        |        |         |       |         |          |        |         | Section 287 |          |         |       |       |       |      |       |       |     |
|                                                       | (21165) | 21165      | 21170  | 21180 | 21190  | 21200  | 21210  | 21220   | 21238 |         |          |        |         |             |          |         |       |       |       |      |       |       |     |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (20099) | C          | ACTCT  | GG    | CTGGC  | TCTG   | CTGGAA | CAT     | -     | CTGTTA  | CTTGAA   | ACAG   | TTC     | GTGCA       | AGGAT    | GGA     | AGGGG | TGA   | GG    | GCT  |       |       |     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (20397)      |         | -          | ACTCT  | T     | -      | CACAT  | TCTAC  | ATTTTC  | CGTG  | CTCTTA  | G        | TAGT   | ACGGT   | TAT         | GAGCA    | AAAGGC  | GTT   | AAA   | --    | TGA  | AA    | GCT   |     |

|                                                       |         |          |          |         |         |         |          |        |          |             |          |            |             |              |          |       |
|-------------------------------------------------------|---------|----------|----------|---------|---------|---------|----------|--------|----------|-------------|----------|------------|-------------|--------------|----------|-------|
|                                                       |         |          |          |         |         |         |          |        |          | Section 288 |          |            |             |              |          |       |
|                                                       | (21239) | 21239    | 21250    | 21260   | 21270   | 21280   | 21290    | 21300  | 21312    |             |          |            |             |              |          |       |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (20172) | TGAC---- | TATGCAGC | CAGATT  | TTCTCC  | TGAATT  | CATGCT   | ACTCC  | AAAAAG   | ACCGTGT     | GTGGGTT  | AGAACT     | TGATGA      |              |          |       |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (20467) | TGTTGTGT | TAGCAGC  | -AGAGTT | ACAGTG  | GAACCC  | GCATATT  | AGGAT  | GTTATT   | TTAAGTA     | --TTTGTT | CTCAA      |             |              |          |       |
|                                                       |         |          |          |         |         |         |          |        |          | Section 289 |          |            |             |              |          |       |
|                                                       | (21313) | 21313    | 21320    | 21330   | 21340   | 21350   | 21360    | 21370  | 21386    |             |          |            |             |              |          |       |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (20242) | TGCTGGCC | ATGTT    | CAAAA   | AATAGC  | CAGACC  | -----    | CAAGTT | CAGTAAGG | GCA-CGA     | ATT      | T--CTCAGAA | CAAAA       |              |          |       |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (20538) | CAATTTAA | AAAGG    | CTTTT   | AATAGC  | AGTCC   | ACTGA    | CAAGCC | CA       | CAGGTC      | GCA      | GCTAGG     | TAAAGTCAGAT | CCCA         |          |       |
|                                                       |         |          |          |         |         |         |          |        |          | Section 290 |          |            |             |              |          |       |
|                                                       | (21387) | 21387    | 21400    | 21410   | 21420   | 21430   | 21440    | 21450  | 21460    |             |          |            |             |              |          |       |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (20308) | GCTGCC   | CCATCTG  | TGCTT   | GCCTT   | GCAGG   | CTGCTCT  | TCTT   | ACACAT   | -CACAGAA    | TTCAAT   | TCAAAT     | TCATC       | TACAGT       |          |       |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (20612) | TATTTA   | CACAT--- | TGAGT   | TAA     | TTAGATT | TACC     | CGAGT  | ATA      | ACGGA       | AAA      | CACCGGC    | TC          | CAAGTGGTACAT | TGCGT    |       |
|                                                       |         |          |          |         |         |         |          |        |          | Section 291 |          |            |             |              |          |       |
|                                                       | (21461) | 21461    | 21470    | 21480   | 21490   | 21500   | 21510    | 21520  | 21534    |             |          |            |             |              |          |       |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (20381) | GACCGAGC | -TACTGGG | AAGGCT  | GAGGC   | AGAA    | GGAT     | TGCTT  | -GAGCC-  | CAGGAGT     | -TCAA    | AGGC       | CAGCCTG     | GGCAA        |          |       |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (20682) | AAGCTG   | GAA      | TAA     | GTAA    | GTAT    | CTTAT    | ACAA   | TTGGTGC  | ATAGATTAT   | CTGGAAT  | TCAA       | ACGCTCGTAC  | GTCCA        |          |       |
|                                                       |         |          |          |         |         |         |          |        |          | Section 292 |          |            |             |              |          |       |
|                                                       | (21535) | 21535    | 21540    | 21550   | 21560   | 21570   | 21580    | 21590  | 21608    |             |          |            |             |              |          |       |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (20451) | CA       | TAGCG    | AGACTC  | -----   | CA      | TCTCTTAA | AAAA   | CAAA     | ----        | AAACAC   | ACCTGT     | GAATCC      | CAGCA        | CTTTGGGA | GGCCG |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (20756) | GT       | TAGC     | AGAC    | ATAAGT  | CA      | ATACTTAA | CTAT   | ATCAG    | CCCAAT      | CTAACC   | GAGAGT     | ACACT       | CA           | AGCGACCG | GGCAG |
|                                                       |         |          |          |         |         |         |          |        |          | Section 293 |          |            |             |              |          |       |
|                                                       | (21609) | 21609    | 21620    | 21630   | 21640   | 21650   | 21660    | 21670  | 21682    |             |          |            |             |              |          |       |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (20518) | AGGTGGG  | TGGAT    | CACTG   | AGGCC   | AGGAG   | TTTGAG   | ACCAGC | CTGGCC   | ACATGGT     | -GAAAT   | TCCCGA     | CTCTA       | CTAA         |          |       |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (20830) | ATAATTT  | TAGGT    | TAAAA   | TATTA   | TGCA    | TTAGGC   | AAGAGC | GAA      | GAGTAC      | AGGTTAG  | CTTTGT     | CCA         | AGGAG        | CCG      |       |
|                                                       |         |          |          |         |         |         |          |        |          | Section 294 |          |            |             |              |          |       |
|                                                       | (21683) | 21683    | 21690    | 21700   | 21710   | 21720   | 21730    | 21740  | 21756    |             |          |            |             |              |          |       |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (20591) | AA       | ATA      | TAAAA   | ATTAGCC | AGGTT   | TGGTGG   | CGGG   | CGCTGT   | AA          | CCAGCT   | ACTCT      | TGGAGGC     | TGA          | GGCAGG   | AGAAT |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (20904) | CC       | ATAGAA   | TGATT   | TTTAA   | TAAAT   | TATAGT   | GGGG   | GGTT--   | AAGCAT      | TTTCTGGT | TATCA      | ACTTTT      | -GGCAGC      | ACCTT    |       |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                       |                                          |             |       |         |       |       |       |       |        |          |        |          |       |       |        |        |        |        |      |       |       |        |       |      |      |
|-------------------------------------------------------|------------------------------------------|-------------|-------|---------|-------|-------|-------|-------|--------|----------|--------|----------|-------|-------|--------|--------|--------|--------|------|-------|-------|--------|-------|------|------|
|                                                       |                                          | Section 295 |       |         |       |       |       |       |        |          |        |          |       |       |        |        |        |        |      |       |       |        |       |      |      |
|                                                       |                                          | (21757)     | 21757 | 21770   | 21780 | 21790 | 21800 | 21810 | 21820  | 21830    |        |          |       |       |        |        |        |        |      |       |       |        |       |      |      |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | SARS-CoV-2 Reference Genome Shuffle No.1 | (20665)     | CGCT  | TGAAC   | CCGG  | AAGGC | AGAGG | TTGCA | GTGAAC | CAAGATTG | --TGCC | ATAGCACT | CCAG  | CTG   | -----  | GGC    |        |        |      |       |       |        |       |      |      |
|                                                       |                                          | (20975)     | ATTC  | TGTTA   | CCAG  | TGAAA | ATA   | TTT   | TTGAC  | GTAA     | TAT    | AAC      | GGA   | TGCC  | CAGGTG | CTAGTT | CTG    | TTTTGT | TGT  |       |       |        |       |      |      |
|                                                       |                                          | Section 296 |       |         |       |       |       |       |        |          |        |          |       |       |        |        |        |        |      |       |       |        |       |      |      |
|                                                       |                                          | (21831)     | 21831 | 21840   | 21850 | 21860 | 21870 | 21880 | 21890  | 21904    |        |          |       |       |        |        |        |        |      |       |       |        |       |      |      |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | SARS-CoV-2 Reference Genome Shuffle No.1 | (20730)     | GACAA | AAGCA   | AA--A | ACT   | CCAT  | CTCAA | AAAA   | AAAA     | AAAC   | AAAA     | AACAG | AAACA | AGT    | TAAT   | CAG    | AGCC   | ACAG |       |       |        |       |      |      |
|                                                       |                                          | (21049)     | GTTTG | ATCGA   | ATTTT | ACT   | AAAT  | TTA   | AAAT   | AAAT     | TAAC   | AC       | AAAT  | CCTTT | ATTGA  | AAAT   | CAAT   | TTTG   | CAG  | TCAA  | ACA   | AG     |       |      |      |
|                                                       |                                          | Section 297 |       |         |       |       |       |       |        |          |        |          |       |       |        |        |        |        |      |       |       |        |       |      |      |
|                                                       |                                          | (21905)     | 21905 | 21910   | 21920 | 21930 | 21940 | 21950 | 21960  | 21978    |        |          |       |       |        |        |        |        |      |       |       |        |       |      |      |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | SARS-CoV-2 Reference Genome Shuffle No.1 | (20802)     | GGC   | -AC     | AGAC  | AGG   | CCAA  | CAG   | AGG    | GCATAG   | GGT    | CACT     | TGGC  | AGT   | CTGG   | TTA    | -AG    | AAAT   | AG   | ACAA  | CACT  | TAA    | AA    |      |      |
|                                                       |                                          | (21123)     | AGAG  | ATATT   | C     | GTC   | CCAA  | TTT   | AGC    | GAA      | GTT    | GAT      | TTT   | TTC   | A      | -AGT   | AA     | GGT    | TTT  | AAC   | AAAT  | TAT    | AATTT | CA   | TGCG |
|                                                       |                                          | Section 298 |       |         |       |       |       |       |        |          |        |          |       |       |        |        |        |        |      |       |       |        |       |      |      |
|                                                       |                                          | (21979)     | 21979 | 21990   | 22000 | 22010 | 22020 | 22030 | 22040  | 22052    |        |          |       |       |        |        |        |        |      |       |       |        |       |      |      |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | SARS-CoV-2 Reference Genome Shuffle No.1 | (20874)     | AAC   | AAACAA  | AA    | CAC   | TTG   | CAC   | AGCAA  | -TGG     | GCA    | AAAC     | CACAC | AGTAG | TGA    | ATGGG  | TGT    | GGT    | GAC  | ATGGC | ACA   | ACA    |       |      |      |
|                                                       |                                          | (21196)     | AAC   | GATTGG  | AA    | TAA   | TTAT  | G     | CGG    | ATGG     | TGG    | ACCAA    | AA    | CAC   | TCATA  | TAA    | -----  | TGT    | TCA  | GAT   | ACA   | ATTTCT | GT    |      |      |
|                                                       |                                          | Section 299 |       |         |       |       |       |       |        |          |        |          |       |       |        |        |        |        |      |       |       |        |       |      |      |
|                                                       |                                          | (22053)     | 22053 | 22060   | 22070 | 22080 | 22090 | 22100 | 22110  | 22126    |        |          |       |       |        |        |        |        |      |       |       |        |       |      |      |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | SARS-CoV-2 Reference Genome Shuffle No.1 | (20947)     | GAG   | GAAAGCC | CAGG  | TGAG  | GTT   | CATTT | CTT    | TCAG     | ACT    | TGTCC    | ACC   | ACT   | AAC    | CTGT   | TGT    | ACCT   | AAC  | CATT  | TGG   | GGT    | C     |      |      |
|                                                       |                                          | (21263)     | GCGT  | ATAAG   | ACA   | CTTT  | GTTT  | TGCAC | CGT    | AGAC     | CAC    | ATAGG    | CAG   | ACT   | GAA    | CAT    | AATA   | ATTG   | AAAT | CTAC  | TC    | GG     | AA    | C    |      |
|                                                       |                                          | Section 300 |       |         |       |       |       |       |        |          |        |          |       |       |        |        |        |        |      |       |       |        |       |      |      |
|                                                       |                                          | (22127)     | 22127 | 22140   | 22150 | 22160 | 22170 | 22180 | 22190  | 22200    |        |          |       |       |        |        |        |        |      |       |       |        |       |      |      |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | SARS-CoV-2 Reference Genome Shuffle No.1 | (21021)     | TT    | AGACT   | CTCT  | T---- | TT    | TGACA | ATCT   | GTATT    | AAAT   | G-       | CACT  | -GC   | TCCCTT | CCC    | CTG    | AAAT   | AC   | CACAC | AGG   | TGC    | ACA   |      |      |
|                                                       |                                          | (21337)     | TT    | CTC     | CGT   | TATGC | TT    | CCA   | AGAT   | CTGT     | ATT    | TC       | GT    | CACT  | C      | GC     | ATAGGA | CCC    | GC   | GT    | ATTAA | ATC    | AGTCT | TTA  | ATAA |
|                                                       |                                          | Section 301 |       |         |       |       |       |       |        |          |        |          |       |       |        |        |        |        |      |       |       |        |       |      |      |
|                                                       |                                          | (22201)     | 22201 | 22210   | 22220 | 22230 | 22240 | 22250 | 22260  | 22274    |        |          |       |       |        |        |        |        |      |       |       |        |       |      |      |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | SARS-CoV-2 Reference Genome Shuffle No.1 | (21089)     | GACT  | ACAC    | GGGGA | TAC   | ATCC  | AAAG  | ACA    | AGG      | AGT    | TGA      | TTCC  | AG    | ACT    | AA     | GAA    | CC     | TGGG | C     | AAAG  | CT     | TTCT  | CCCT | C    |
|                                                       |                                          | (21411)     | GG    | CAAA    | AC    | ATT-- | TAC   | TTC   | --     | AG       | GTA    | TAGA     | AA    | TCT   | TTG    | CGG    | TC     | -AG    | GAA  | CA    | TAATA | CT     | ACT   | TG   | TTTT |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                               |  |  |  |  |  |  |  |  |  |                                                                               |
|---------------------------------------------------------------|--|--|--|--|--|--|--|--|--|-------------------------------------------------------------------------------|
|                                                               |  |  |  |  |  |  |  |  |  | Section 302                                                                   |
|                                                               |  |  |  |  |  |  |  |  |  | 22275                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22280                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22290                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22300                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22310                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22320                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22330                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22348                                                                         |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... (21163) |  |  |  |  |  |  |  |  |  | TAGGGCTGCTCTCTTCATCTGACCTCAAACTCCAGATTCTCAGTGGG---ATGGCTGTGGGGA GTGAGGA       |
| SARS-CoV-2 Reference Genome Shuffle No.1 (21476)              |  |  |  |  |  |  |  |  |  | GAAGCCTGGT-TATTCACTGCGCATTAATCATCA-ATGCTCAGTGAGGTTTATCGATTAAACATCGTAAGTAT     |
|                                                               |  |  |  |  |  |  |  |  |  | Section 303                                                                   |
|                                                               |  |  |  |  |  |  |  |  |  | 22349                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22360                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22370                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22380                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22390                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22400                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22410                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22422                                                                         |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... (21234) |  |  |  |  |  |  |  |  |  | CGGGGGCGGGGGGGAAGGAGTAACAGCAGAGCAGCCAGTTGGCTTTCTCCAGCGT--TTAAGGCGCGACCTCG     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (21548)              |  |  |  |  |  |  |  |  |  | CCATT-CACATATGATTTG-ACCTGCCAAG-AGATATTGGATTTAAGCCAAGTGGTTAACGAGTAAACAT        |
|                                                               |  |  |  |  |  |  |  |  |  | Section 304                                                                   |
|                                                               |  |  |  |  |  |  |  |  |  | 22423                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22430                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22440                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22450                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22460                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22470                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22480                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22496                                                                         |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... (21306) |  |  |  |  |  |  |  |  |  | TTAATTGCTTGCTG-GAACA GAACCTAGAGTAGGAGGAAGCTGAACCACTGTAAACCTCTGATTTTCAAGAA     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (21619)              |  |  |  |  |  |  |  |  |  | GC AATAGCCTACAGCGAACA TTCTTGTTACGAATATT AAGCGCATTAAGAAGACAGCA-CTTTTGTTAGATTA  |
|                                                               |  |  |  |  |  |  |  |  |  | Section 305                                                                   |
|                                                               |  |  |  |  |  |  |  |  |  | 22497                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22510                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22520                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22530                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22540                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22550                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22560                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22570                                                                         |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... (21379) |  |  |  |  |  |  |  |  |  | CTTATTGCA--TTCTTAG-TATATGCCACGCATGTGCCATATTG-TAAGCCAACTCCACGAT-TTATCCG--      |
| SARS-CoV-2 Reference Genome Shuffle No.1 (21692)              |  |  |  |  |  |  |  |  |  | CTTCTTAGAAGTTACAAGATATCAGAACATCAGGTGTGGTACTCGCTCATGAATTATCTAAGTCTTAACCGAG     |
|                                                               |  |  |  |  |  |  |  |  |  | Section 306                                                                   |
|                                                               |  |  |  |  |  |  |  |  |  | 22571                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22580                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22590                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22600                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22610                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22620                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22630                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22644                                                                         |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... (21446) |  |  |  |  |  |  |  |  |  | ---TTATCAGCTGGACTCCCATAAGCACCTGGGTGTGTAACCTGTGGGTGAAAAGGCCTGTCTCCTTCTCTTTCC   |
| SARS-CoV-2 Reference Genome Shuffle No.1 (21766)              |  |  |  |  |  |  |  |  |  | CGAAGAACAGCCTG-CTTATATAATGCTCGGGATTATGTCTGTGCTTGAAAATT-CGAAAA TCAGTGATATTACG  |
|                                                               |  |  |  |  |  |  |  |  |  | Section 307                                                                   |
|                                                               |  |  |  |  |  |  |  |  |  | 22645                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22650                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22660                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22670                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22680                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22690                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22700                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22718                                                                         |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... (21517) |  |  |  |  |  |  |  |  |  | CC-AGTTCCTTGAGACAGGACC GTGTCTCTGCC TGGGTATCCCCAGAGT TTGGCACACGGTGATAGCCACAT   |
| SARS-CoV-2 Reference Genome Shuffle No.1 (21838)              |  |  |  |  |  |  |  |  |  | GAGAAATTCCTGTCTACCTCAAGAA-GAAATCTAGTTTGTTGTAGAGGTACATGTTAGCCGTGTTATACATCTATAC |
|                                                               |  |  |  |  |  |  |  |  |  | Section 308                                                                   |
|                                                               |  |  |  |  |  |  |  |  |  | 22719                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22730                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22740                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22750                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22760                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22770                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22780                                                                         |
|                                                               |  |  |  |  |  |  |  |  |  | 22792                                                                         |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... (21590) |  |  |  |  |  |  |  |  |  | TCACTGAGCGCCAAAGGGCAGGTGCTGCACTCTCTCAAAATAAGCCTCTGCCACTTACTGAACA ACTAGTCT     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (21911)              |  |  |  |  |  |  |  |  |  | TAAGT-ATTGGAATGTGGTCAGTTTCAATCGGAAGACATGAATCTCTTTTCAGTGCGGTACACACTGAACCT      |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                      |         |                             |             |              |              |               |              |            |                                      |             |
|------------------------------------------------------|---------|-----------------------------|-------------|--------------|--------------|---------------|--------------|------------|--------------------------------------|-------------|
|                                                      |         |                             |             |              |              |               |              |            |                                      | Section 309 |
|                                                      | (22793) | 22793                       | 22800       | 22810        | 22820        | 22830         | 22840        | 22850      | 22866                                |             |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (21664) | GGGCCAAGCACTGGGATACTAAGCC   | TACGACTC    | -CCAGAAAGGTC | CCGGCGGACCCC | CGTGC         | GC-AG        | CGGG       | GACG                                 |             |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (21984) | GCATACATCAGCTGTACCCTTTCGATA | GAGTTC      | CTCCTGAGATC  | GGTTTCTAATTA | CGC           | GAGATAGATA   | GA-G       |                                      |             |
|                                                      |         |                             |             |              |              |               |              |            |                                      | Section 310 |
|                                                      | (22867) | 22867                       | 22880       | 22890        | 22900        | 22910         | 22920        | 22930      | 22940                                |             |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (21736) | CAGTGGGC                    | GCCAGGGAC   | GCAGTG       | CCCCCGGG     | CCAGCGCTCTTCT | CCAGGTGATCGC | CGGG       | GAGGCAGGTTTAA                        |             |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (22057) | CAGTTAA-GCCATG              | ----CTAAAT  | TTTGC        | CGCACAGAG    | AATAGTCAG     | CAGGGGATCTA  | CGGGT----- | TTTGA                                |             |
|                                                      |         |                             |             |              |              |               |              |            |                                      | Section 311 |
|                                                      | (22941) | 22941                       | 22950       | 22960        | 22970        | 22980         | 22990        | 23000      | 23014                                |             |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (21810) | AAGGCAGGAG                  | CCCGAAGC    | CGTCTCGGCGCC | CAGGTG       | GCCGAGAA      | TCCAGTCA     | CCAGGTCA   | CTGAGTCA                             |             |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (22120) | AGCTTAGGC                   | CAGTGA-GCTT | TCATTTTGG    | CCTGTG       | AGAGCGTT      | TCCATTC      | -CGTTGTTT  | CTAACTTAAGGCTT                       |             |
|                                                      |         |                             |             |              |              |               |              |            |                                      | Section 312 |
|                                                      | (23015) | 23015                       | 23020       | 23030        | 23040        | 23050         | 23060        | 23070      | 23088                                |             |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (21884) | GGGGCGAGGA                  | CACGGG      | CCTGGGC      | CGGTCAGAGGGG | CGGGATC       | GTCA         | CCCC       | CTGGCTCAGGGGCC                       |             |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (22192) | CTGG--AGGA                  | AA          | GTCA         | CCTTAAAC     | -----         | AAAGTTAAAG   | CTATATCTAG | ----CATTTT                           |             |
|                                                      |         |                             |             |              |              |               |              |            |                                      | Section 313 |
|                                                      | (23089) | 23089                       | 23100       | 23110        | 23120        | 23130         | 23140        | 23150      | 23162                                |             |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (21958) | GCA                         | GGGAGCC     | AAAGTCA      | GTCTTC       | GCTTGAG       | GGTTG        | GC         | GTCGCTGGAAGTGGTAG                    |             |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (22245) | GAC                         | GGGTT--     | AGGT         | TCAACA       | TTCTCT        | CAGCA        | TTGAA      | GAGT-CTGAAATCTTTGTTATACTATAGTTTTTGAT |             |
|                                                      |         |                             |             |              |              |               |              |            |                                      | Section 314 |
|                                                      | (23163) | 23163                       | 23170       | 23180        | 23190        | 23200         | 23210        | 23220      | 23236                                |             |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (22027) | A                           | CTAAT       | CCCG         | GAA          | GGGTG         | CGCAAG       | GGAGG      | CGGCAG                               |             |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (22316) | G                           | CAAT        | CCCG         | TTAAAT       | TG----        | AGATATA      | CA         | GCAGACTTCTACAA                       |             |
|                                                      |         |                             |             |              |              |               |              |            |                                      | Section 315 |
|                                                      | (23237) | 23237                       | 23250       | 23260        | 23270        | 23280         | 23290        | 23300      | 23310                                |             |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (22098) | GCTC                        | CCCG        | CCC          | ACAA         | GCACG         | TCC          | TTGC       | CCCCGG                               |             |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (22386) | TAGG                        | CAAT        | CTTAG        | AA-----      | TAT           | TTGC         | AA----     | G                                    |             |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                      |         |       |       |       |       |       |       |       |       |
|------------------------------------------------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|
| Section 316                                          |         |       |       |       |       |       |       |       |       |
|                                                      | (23311) | 23311 | 23320 | 23330 | 23340 | 23350 | 23360 | 23370 | 23384 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (22172) | C     | G     | G     | C     | T     | C     | G     | C     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (22451)     |         | T     | G     | G     | A     | C     | A     | A     | A     |
| Section 317                                          |         |       |       |       |       |       |       |       |       |
|                                                      | (23385) | 23385 | 23390 | 23400 | 23410 | 23420 | 23430 | 23440 | 23458 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (22246) | C     | T     | G     | C     | A     | G     | G     | G     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (22523)     |         | C     | A     | C     | T     | A     | T     | G     | A     |
| Section 318                                          |         |       |       |       |       |       |       |       |       |
|                                                      | (23459) | 23459 | 23470 | 23480 | 23490 | 23500 | 23510 | 23520 | 23532 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (22316) | G     | G     | C     | G     | A     | A     | A     | A     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (22596)     |         | T     | T     | C     | C     | A     | A     | T     | T     |
| Section 319                                          |         |       |       |       |       |       |       |       |       |
|                                                      | (23533) | 23533 | 23540 | 23550 | 23560 | 23570 | 23580 | 23590 | 23606 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (22388) | G     | C     | C     | T     | T     | C     | C     | T     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (22659)     |         | C     | C     | T     | T     | C     | C     | T     | T     |
| Section 320                                          |         |       |       |       |       |       |       |       |       |
|                                                      | (23607) | 23607 | 23620 | 23630 | 23640 | 23650 | 23660 | 23670 | 23680 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (22461) | A     | G     | C     | T     | C     | G     | A     | G     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (22729)     |         | A     | A     | A     | C     | A     | A     | T     | A     |
| Section 321                                          |         |       |       |       |       |       |       |       |       |
|                                                      | (23681) | 23681 | 23690 | 23700 | 23710 | 23720 | 23730 | 23740 | 23754 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (22526) | G     | G     | G     | T     | G     | T     | A     | G     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (22803)     |         | A     | C     | A     | C     | T     | C     | G     | T     |
| Section 322                                          |         |       |       |       |       |       |       |       |       |
|                                                      | (23755) | 23755 | 23760 | 23770 | 23780 | 23790 | 23800 | 23810 | 23828 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (22600) | G     | C     | A     | G     | T     | G     | G     | T     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (22875)     |         | A     | C     | G     | C     | A     | T     | A     | C     |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                       |                                                  |                     |               |              |              |                |              |              |            |             |         |             |        |      |      |       |      |      |      |    |  |  |
|-------------------------------------------------------|--------------------------------------------------|---------------------|---------------|--------------|--------------|----------------|--------------|--------------|------------|-------------|---------|-------------|--------|------|------|-------|------|------|------|----|--|--|
|                                                       |                                                  |                     |               |              |              |                |              |              |            |             |         | Section 323 |        |      |      |       |      |      |      |    |  |  |
|                                                       |                                                  | (23829)             | 23829         | 23840        | 23850        | 23860          | 23870        | 23880        | 23890      | 23902       |         |             |        |      |      |       |      |      |      |    |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (22672)                                          | GGCC---             | TGGGGAGGGGGC  | GTTGCTAA     | GGGAGCTGAGAG | AGGCGTTGCCGGGG | GTGGGGCCGGCC | AATCTGGG     |            |             |         |             |        |      |      |       |      |      |      |    |  |  |
|                                                       | SARS-CoV-2 Reference Genome Shuffle No.1 (22949) | TGACGTA             | TATCTAAGCTTA  | GTAATA       | TAACTCTCT    | CTTAGGTACT     | CGCTACCC     | GGGAAATTAAAC | GGGGAGAAAG | GTT         |         |             |        |      |      |       |      |      |      |    |  |  |
|                                                       |                                                  |                     |               |              |              |                |              |              |            |             |         | Section 324 |        |      |      |       |      |      |      |    |  |  |
|                                                       |                                                  | (23903)             | 23903         | 23910        | 23920        | 23930          | 23940        | 23950        | 23960      | 23976       |         |             |        |      |      |       |      |      |      |    |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (22743)                                          | CCCGCAGGTGGCAGCGGGT | GGGGCTTAAATG  | CACAGTTATAG  | AAGATATGA    | CCGGTTCCATG    | TCA          |              |            |             |         |             |        |      |      |       |      |      |      |    |  |  |
|                                                       | SARS-CoV-2 Reference Genome Shuffle No.1 (23023) | ATCTAATGCAGCGCTG    | TCGGGCCT      | TAAATG       | CACAGTTATAG  | AAGATATGA      | CCGGTTCCATG  | TCA          | TAAAAAG    |             |         |             |        |      |      |       |      |      |      |    |  |  |
|                                                       |                                                  |                     |               |              |              |                |              |              |            |             |         | Section 325 |        |      |      |       |      |      |      |    |  |  |
|                                                       |                                                  | (23977)             | 23977         | 23990        | 24000        | 24010          | 24020        | 24030        | 24040      | 24050       |         |             |        |      |      |       |      |      |      |    |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (22811)                                          | --CGTGCCTAAGTCT     | GGGGTCTTTTCTC | ATAAC        | CCCTC        | CTGGAATCTGA    | GGGAGAA      | TCCAGGCC     | AGCTCCAGTA |             |         |             |        |      |      |       |      |      |      |    |  |  |
|                                                       | SARS-CoV-2 Reference Genome Shuffle No.1 (23096) | ATCATGTGCA          | AAGACTT       | GCCAGCGATCTC | CCATGCAC--   | CTACCACCTTC    | GATTCCCT     | TCGAAGAT     | AACACG     | GTA         |         |             |        |      |      |       |      |      |      |    |  |  |
|                                                       |                                                  |                     |               |              |              |                |              |              |            |             |         | Section 326 |        |      |      |       |      |      |      |    |  |  |
|                                                       |                                                  | (24051)             | 24051         | 24060        | 24070        | 24080          | 24090        | 24100        | 24110      | 24124       |         |             |        |      |      |       |      |      |      |    |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (22883)                                          | AA                  | TCCCACCCATGTT | TCCCTTTTATT  | TCCATCTG     | AAAGAGTTT      | TGGAATG      | AAACAA       | GCGTTT     | CAGATGAGCT  |         |             |        |      |      |       |      |      |      |    |  |  |
|                                                       | SARS-CoV-2 Reference Genome Shuffle No.1 (23168) | GT                  | T---AC        | TCAAC        | TAGATGAG     | AA             | TAAATAG      | GTCCG        | GCGATTG    | CACTT       | ATGAGCT |             |        |      |      |       |      |      |      |    |  |  |
|                                                       |                                                  |                     |               |              |              |                |              |              |            |             |         | Section 327 |        |      |      |       |      |      |      |    |  |  |
|                                                       |                                                  | (24125)             | 24125         | 24130        | 24140        | 24150          | 24160        | 24170        | 24180      | 24198       |         |             |        |      |      |       |      |      |      |    |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (22956)                                          | TCC                 | TCACAGG       | ACTTTGTGCT   | TATC         | ---ATGCT       | GCTGTTT      | TAGCTTCTC    | CAGTCCT    | TTCTCACTCTA | TCCCTCA |             |        |      |      |       |      |      |      |    |  |  |
|                                                       | SARS-CoV-2 Reference Genome Shuffle No.1 (23238) | TGAG                | TC            | TGAATATG     | TTCCGAT      | ACCCCATAC      | CGCGCTTTAC   | TAGGTCCAA    | CCACAGC    | TAGTAATGAAG | TTTG    | TGA         |        |      |      |       |      |      |      |    |  |  |
|                                                       |                                                  |                     |               |              |              |                |              |              |            |             |         | Section 328 |        |      |      |       |      |      |      |    |  |  |
|                                                       |                                                  | (24199)             | 24199         | 24210        | 24220        | 24230          | 24240        | 24250        | 24260      | 24272       |         |             |        |      |      |       |      |      |      |    |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (23026)                                          | CC                  | CTTTCTGGG     | TCACTGACA    | --GTCCAG     | CTTCCCT        | GCAAAGCAT    | CC           | TG         | GGA         | AACTT   | GAGTGTGT    | TCCCAG |      |      |       |      |      |      |    |  |  |
|                                                       | SARS-CoV-2 Reference Genome Shuffle No.1 (23312) | CC                  | GG----        | GGG          | CAAAAGT      | AATGTACTG      | TTCTCC       | CTTTTT       | ACAATA     | TGCTTAAA    | TAAAG   | TGTGT       | ATG    | AT   |      |       |      |      |      |    |  |  |
|                                                       |                                                  |                     |               |              |              |                |              |              |            |             |         | Section 329 |        |      |      |       |      |      |      |    |  |  |
|                                                       |                                                  | (24273)             | 24273         | 24280        | 24290        | 24300          | 24310        | 24320        | 24330      | 24346       |         |             |        |      |      |       |      |      |      |    |  |  |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (23098)                                          | AG                  | TGAC          | AA           | GTCC         | TTTCTGAT       | ---          | TTCAG        | A          | TACGTC      | ACACTGT | CAAA        | TGGA   | AC   | TGC  | ATTT  | TTAC | CC   | CCCT | TT |  |  |
|                                                       | SARS-CoV-2 Reference Genome Shuffle No.1 (23379) | TGT                 | ACGT          | AT           | GTAA         | TCTGG          | GATCGAT      | TGGA         | AA         | AGCTAAG     | AACTATT | ACTTAG      | TAA    | CAAT | AAGA | TTTCT | CAT  | GGTA |      |    |  |  |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                      |         |                                                                                                                                                       |       |       |       |       |       |       |       |  |  |
|------------------------------------------------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|--|--|
|                                                      |         | Section 330                                                                                                                                           |       |       |       |       |       |       |       |  |  |
|                                                      | (24347) | 24347                                                                                                                                                 | 24360 | 24370 | 24380 | 24390 | 24400 | 24410 | 24420 |  |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (23168) | T C A G - C T G G - - C G T T G G A C A T C T T T G A G G T G - - T - - C C T G A A G A G G A G G G T G G T T A - T T T G G A G A C T A T C A G T G   |       |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (23453) | G C T G T C G G A A C C G A T G T A A A A A A T T C G G T T G A A T C T T C G G G A T A G C T G C C A G A C C C G T A T T G A G A G C A T A A A A G   |       |       |       |       |       |       |       |  |  |
|                                                      |         | Section 331                                                                                                                                           |       |       |       |       |       |       |       |  |  |
|                                                      | (24421) | 24421                                                                                                                                                 | 24430 | 24440 | 24450 | 24460 | 24470 | 24480 | 24494 |  |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (23234) | G A A A T G A A G A G C T C A G C T - G A T G G C T G T A G A T C C T C A C C C A C A T G G T C C C T C A C C C C T G A A A G G T T T T T T T T G A   |       |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (23527) | C C G A T C A C T G A C T G G G A T T G C T T G C G T C T A A G A C T A A G T T A C - - G G T A T A T C A C C C T A A G A T C C T T T T A A T T A C   |       |       |       |       |       |       |       |  |  |
|                                                      |         | Section 332                                                                                                                                           |       |       |       |       |       |       |       |  |  |
|                                                      | (24495) | 24495                                                                                                                                                 | 24500 | 24510 | 24520 | 24530 | 24540 | 24550 | 24568 |  |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (23307) | G G G C T G G T T C C T A T T T G A T A A T G G C T C C A G A T G A T T T A G A A G C T A G - - C C A - C T G A T T T C A G T A A A T A C T T T C T G |       |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (23599) | G C A C T - - T T T C T T T G C C C G A C G G G C G A A G A A T T A A A T A T A C G C T A C G C C C A T C G A A T T T T T G T T G T T G C T T A T C   |       |       |       |       |       |       |       |  |  |
|                                                      |         | Section 333                                                                                                                                           |       |       |       |       |       |       |       |  |  |
|                                                      | (24569) | 24569                                                                                                                                                 | 24580 | 24590 | 24600 | 24610 | 24620 | 24630 | 24642 |  |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (23378) | C C T C C T T C C A C T C C T A A C C C A C T A A A A A A G G C T C C C T C T G C G G A T C T G T T T T T C T A G A C C A T C C T T G G A G A A A C A |       |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (23671) | C C G C G G T A C T C G A T T T A C C C A T A A G A C T T C C T T A T C T C C A T A C T T T A A A A G A T C T C A A C C A T C A T C C G A T A A A - - |       |       |       |       |       |       |       |  |  |
|                                                      |         | Section 334                                                                                                                                           |       |       |       |       |       |       |       |  |  |
|                                                      | (24643) | 24643                                                                                                                                                 | 24650 | 24660 | 24670 | 24680 | 24690 | 24700 | 24716 |  |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (23452) | C A G G A G G A G G A G G A T G A G A T T C T T C C A A G A A A G A C T A T G A G G T G A G C T C C T T T G A T A C T G C T T G G G C A C T A A       |       |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (23743) | - A T G A A G A C A C G - - T G A T A - - - - - A A G C A G G C G C T A T T T A T T G A A C T C - - T T A A T C A C C C T T G A C G C A G T A C       |       |       |       |       |       |       |       |  |  |
|                                                      |         | Section 335                                                                                                                                           |       |       |       |       |       |       |       |  |  |
|                                                      | (24717) | 24717                                                                                                                                                 | 24730 | 24740 | 24750 | 24760 | 24770 | 24780 | 24790 |  |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (23526) | A G T A G T G A G T G G C C T G G T C A C T T C A G G C C G A A G C A T T A T G A T T C C A A C C A G A G A T G C T C - T T T G A C C T T C T G T C   |       |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (23805) | A G G - G T C A G A - - - - T T G T C A A T A C C C A A T G A T G T A T T A T C A G A A A T A T T G T A T T A A C T C A T T T T A C T A T A T A C     |       |       |       |       |       |       |       |  |  |
|                                                      |         | Section 336                                                                                                                                           |       |       |       |       |       |       |       |  |  |
|                                                      | (24791) | 24791                                                                                                                                                 | 24800 | 24810 | 24820 | 24830 | 24840 | 24850 | 24864 |  |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (23599) | C C A G G G A G T G A G T G G T A A G A G A A C T T C C T T C T A G G A A A G A G A C T G T T T A G C A A G C C C T T T T C T C A C C T T A A C C     |       |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (23874) | G C T A A G C T T - A G A A G G A A C T A T C A C T T G G A - C T T G C A C A G A T A G - - - - - A G C G G C C T C A T A A C G T G A G T T G A C A   |       |       |       |       |       |       |       |  |  |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                              |                                                  |                                                                                                                                                                                                                                                                                                      |       |       |       |       |       |       |       |             |
|--------------------------------------------------------------|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------------|
|                                                              | (24865)                                          | 24865                                                                                                                                                                                                                                                                                                | 24870 | 24880 | 24890 | 24900 | 24910 | 24920 |       | Section 337 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... (23673) | SARS-CoV-2 Reference Genome Shuffle No.1 (23941) | C C A A A A C A A G G T C T G G T G T T T T A C A C G G T T T A T A A T C T G T G G C A C C T T A A C C T G G A T A G A G T A T G T A T T T G C C C G C C A - C T A G G G A T G C C A G T G G T T C A C G C C T T - T C A T T T T T A A A A A C C A T --- C T G T A T C C G G T G C A A A C A T -- C |       |       |       |       |       |       |       | 24938       |
|                                                              | (24939)                                          | 24939                                                                                                                                                                                                                                                                                                | 24950 | 24960 | 24970 | 24980 | 24990 | 25000 |       | Section 338 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... (23747) | SARS-CoV-2 Reference Genome Shuffle No.1 (24008) | A T T A A A C T G T T T G C T T T T A C A G C T T A C A G A G A G C T T - A G A G T G A A A G G C A C T G G C A G G C A G T A T G T G C C C C T A G T T A -- C G T T G A G C A T A C A T A A A G A G G T C G A G A G G G T G C A A G G A T T C G G G T C T A C T - T A T C G T G G T C               |       |       |       |       |       |       |       | 25012       |
|                                                              | (25013)                                          | 25013                                                                                                                                                                                                                                                                                                | 25020 | 25030 | 25040 | 25050 | 25060 | 25070 |       | Section 339 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... (23820) | SARS-CoV-2 Reference Genome Shuffle No.1 (24079) | A C A G G T G T G T G C T T A T A A A - C T G T T A A G G A A G G C C T T G C T T C T C T C T A G A G A G C T G C T T T T C A G A T A T T T T C A C A T A T C G C T A T C T A T G T T G C T T T T T C C A T A G T A T G -- T C C A C T C A T T G A A T G T A T G A A G A A C T C A - A T T T A G     |       |       |       |       |       |       |       | 25086       |
|                                                              | (25087)                                          | 25087                                                                                                                                                                                                                                                                                                | 25100 | 25110 | 25120 | 25130 | 25140 | 25150 | 25160 | Section 340 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... (23893) | SARS-CoV-2 Reference Genome Shuffle No.1 (24150) | T T G C T C A A G C A G C T T C T C T C T G A C A T G T T C T T - G A T - - - - T A A G T T C C A C C T T T C A T G T A T G G G A T T C T T A G A G T A T T A C T A T C - G A T T A T G T C T G A T A T A C A C T T A G A T A T C A T A A G T A G C G A A C T G C C C C A T G A A C T G C C A G A C  |       |       |       |       |       |       |       | 25160       |
|                                                              | (25161)                                          | 25161                                                                                                                                                                                                                                                                                                | 25170 | 25180 | 25190 | 25200 | 25210 | 25220 |       | Section 341 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... (23962) | SARS-CoV-2 Reference Genome Shuffle No.1 (24223) | T A T G T G T T T T A G T A A A G C C A A C A C T G C T G G G G T G A A A C A A C A T G C G T G A C T T T T A T C A T T A A A T T C T T A A A C - A T G T A C A T T C T G T A A G T -- A A C G G A T C T G G G A C G A C C C T A T T T A A C T C C C A T T A A T A G T A A C C G C C T T A A G       |       |       |       |       |       |       |       | 25234       |
|                                                              | (25235)                                          | 25235                                                                                                                                                                                                                                                                                                | 25240 | 25250 | 25260 | 25270 | 25280 | 25290 |       | Section 342 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... (24036) | SARS-CoV-2 Reference Genome Shuffle No.1 (24294) | G T A A T A A A G A -- A G G T A G A G A A A A G C C T A T A A C T C C A T T C A T T A A A A A G A T G A C T G T T A A C A C C T T A C T A A G T A T T T T A A A C T G A T G A C G A G A G T C A G T T T - T A A T C G C A T T G C G - - - - - G A T - A G T G C T A G A G C C G T A C A G C G T T   |       |       |       |       |       |       |       | 25308       |
|                                                              | (25309)                                          | 25309                                                                                                                                                                                                                                                                                                | 25320 | 25330 | 25340 | 25350 | 25360 | 25370 |       | Section 343 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... (24108) | SARS-CoV-2 Reference Genome Shuffle No.1 (24361) | C T T T C A C A T C C T T A C C C A T G C T T T T A T A T A C A T G A T A C A T G C T T T T T T T A A G T A A C A A A A T G A G A T T C C A C T A T T T - T A T T A T T T A C C C A C T T G T T T C T T T C T A T T T C A C A G C G A C G A T T -- - - - T G A C T A A A C C G T G A G T - - - - -   |       |       |       |       |       |       |       | 25382       |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                      |         |             |                 |            |            |               |            |               |               |          |                         |
|------------------------------------------------------|---------|-------------|-----------------|------------|------------|---------------|------------|---------------|---------------|----------|-------------------------|
|                                                      |         | Section 344 |                 |            |            |               |            |               |               |          |                         |
|                                                      | (25383) | 25383       | 25390           | 25400      | 25410      | 25420         | 25430      | 25440         |               |          |                         |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (24182) | AAA         | TCATCTATT       | TTAACCTGTC | CCACTCACCC | CCTTTATTTATAC | TTTTTGTATC | ATTAGGTAATTTT | CCAC          | AAC      |                         |
| SARS-CoV-2 Reference Genome Shuffle No.1 (24426)     |         | ---         | TTAT-TGTTGTACAT | ---        | CAGCTCA    | TTTCTTGGT     | TGAGAC     | CGAGAAAGGT    | ATTACTGTTGACG | CCAAATC  |                         |
|                                                      |         | Section 345 |                 |            |            |               |            |               |               |          |                         |
|                                                      | (25457) | 25457       | 25470           | 25480      | 25490      | 25500         | 25510      | 25520         | 25530         |          |                         |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (24256) | CTTTT       | CTTTT           | TTTG-AC    | AGAGTCTCAC | -TCTTCCATAA   | TTCTT      | CATGCTGT      | TAGAATT       | ---      | TAGTGTACGCGT            |
| SARS-CoV-2 Reference Genome Shuffle No.1 (24493)     |         | CGTTT       | AGTACG          | TTTGTA     | AGGTGAGG   | TTTTCAC       | TACTAA     | --CATACGC     | TAATATT       | GCA      | TAACTTAACTTT            |
|                                                      |         | Section 346 |                 |            |            |               |            |               |               |          |                         |
|                                                      | (25531) | 25531       | 25540           | 25550      | 25560      | 25570         | 25580      | 25590         | 25604         |          |                         |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (24325) | TAGGAT      | --TGTAG         | CACCTTTT   | TGTAACT    | TTTATTA       | TGAAGGATT  | TCAACTAT      | ATGC          | AAAAAC   | AGAAATATC               |
| SARS-CoV-2 Reference Genome Shuffle No.1 (24565)     |         | TAACT       | TCCCTTC         | AGTGGGC    | TAGAGCTCAA | --TTTATAG     | TGA--GAAC  | TCACTA        | -AGGT         | AAAAA    | GAGAAACAC               |
|                                                      |         | Section 347 |                 |            |            |               |            |               |               |          |                         |
|                                                      | (25605) | 25605       | 25610           | 25620      | 25630      | 25640         | 25650      | 25660         | 25678         |          |                         |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (24397) | TGT         | TGAAAC          | CCTTG      | TCCATC     | ACACAGCT      | TCCAC      | AGTGATTT      | AGCTCA        | AGCCCA   | GTCTTTGTCT-GTG          |
| SARS-CoV-2 Reference Genome Shuffle No.1 (24633)     |         | GGT         | GCTAATC         | -----      | TAGTC      | TATAAAGAG     | GGTGTGT    | AGACCTTT      | CTGAAT        | AGATGT   | GTGTACTGGG              |
|                                                      |         | Section 348 |                 |            |            |               |            |               |               |          |                         |
|                                                      | (25679) | 25679       | 25690           | 25700      | 25710      | 25720         | 25730      | 25740         | 25752         |          |                         |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (24470) | CT          | TTTGTTAT        | TCCACT     | TCTCCT     | TTCTC         | ATATTA     | TTATTT        | TTTATT        | TGTTAT   | TGTGTGTGTGT             |
| SARS-CoV-2 Reference Genome Shuffle No.1 (24702)     |         | AC          | TTCAATTT        | TGAGTG     | TGTGGC     | TGA--         | AAATTA     | GCATAT        | TGGTCGA       | -TAAAAA  | TGTTTATGTTATCTTACACTTCT |
|                                                      |         | Section 349 |                 |            |            |               |            |               |               |          |                         |
|                                                      | (25753) | 25753       | 25760           | 25770      | 25780      | 25790         | 25800      | 25810         | 25826         |          |                         |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (24544) | GTGTG       | TGTGT           | GTGTGT     | GTGTGT     | GTGT          | TTTAAAG    | TAAAGAC       | AGTCTCC       | CTATGTTG | CCCAAGGCTGTTCTCG        |
| SARS-CoV-2 Reference Genome Shuffle No.1 (24773)     |         | AATCC       | TGTGT           | TCAACA     | GGTAGT     | CGTTATA       | TAAATTA    | GAACA         | TACATTA       | AAACTAG  | CC--GGTACATTGGCTGAACTG- |
|                                                      |         | Section 350 |                 |            |            |               |            |               |               |          |                         |
|                                                      | (25827) | 25827       | 25840           | 25850      | 25860      | 25870         | 25880      | 25890         | 25900         |          |                         |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (24618) | AAC         | TCTGAC          | ACGCGATC   | CTCC       | CATGTC        | AGCCTCC    | AAAGTTCT      | GGAATTA       | CAATCAT  | ATCTACCATACC            |
| SARS-CoV-2 Reference Genome Shuffle No.1 (24844)     |         | ----        | CGGTATA         | ACTAATC    | AGTCC      | CCCTTAAT      | TATATTT    | CGAA--        | TAA           | GATATA   | ATGATCCTATTTCAGATGT     |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                      |         |                  |                       |               |                   |              |            |           |                |
|------------------------------------------------------|---------|------------------|-----------------------|---------------|-------------------|--------------|------------|-----------|----------------|
|                                                      |         | Section 351      |                       |               |                   |              |            |           |                |
|                                                      | (25901) | 25901            | 25910                 | 25920         | 25930             | 25940        | 25950      | 25960     | 25974          |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (24692) | TGGCCGCCCTTCCCA  | TGTTATTTTGTAAAGAAATTC | TGTACATCATAT  | TATTTCACCCATAATTC | TATATG       | CA         | TC        | TATATG         |
| SARS-CoV-2 Reference Genome Shuffle No.1 (24910)     |         | GGTAAATAAAT---   | TGATAAGTTGCTATAGAGTC  | AACGAAT-AGGC  | TATTAAAT---       | ATAAC        | TC         | GCAG      | TATAT          |
|                                                      |         | Section 352      |                       |               |                   |              |            |           |                |
|                                                      | (25975) | 25975            | 25980                 | 25990         | 26000             | 26010        | 26020      | 26030     | 26048          |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (24766) | -TCTAA           | TGGATAAGGACTTT        | TAAAAAGCAT    | TAACCCAAT         | ACTATTACCACA | TCTAAAAA   | TTAGGA    | ATTCTTTGA      |
| SARS-CoV-2 Reference Genome Shuffle No.1 (24976)     |         | GCTGTG           | CTGTTGGGCTGG          | TAAATACCGT    | TTTTTATACAG       | CTGGGGGACA   | CTGGCCTTT  | TTAGGA    | TCAATGG-       |
|                                                      |         | Section 353      |                       |               |                   |              |            |           |                |
|                                                      | (26049) | 26049            | 26060                 | 26070         | 26080             | 26090        | 26100      | 26110     | 26122          |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (24839) | TATCAAA          | TATCTACTGTCC          | GATTTTC       | CAGTTTCTTGT       | AAATG-TC     | ATATGTATT  | TTA-AC    | TTTTATT--TGAA  |
| SARS-CoV-2 Reference Genome Shuffle No.1 (25049)     |         | TAT----          | TATTTCTGT             | TTGGAT        | AACGCAAAA         | TTAA         | TACAAATAA  | TCGGGGTC  | AGATTACATTCA   |
|                                                      |         | Section 354      |                       |               |                   |              |            |           |                |
|                                                      | (26123) | 26123            | 26130                 | 26140         | 26150             | 26160        | 26170      | 26180     | 26196          |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (24909) | TTAGGTTCCAAAGTCC | TTTTTTATTT            | TGTTTGAT      | AAATCT            | TGTTAAATCT   | CTTTTAAATC | TGTAGCT   | TCTTCC         |
| SARS-CoV-2 Reference Genome Shuffle No.1 (25119)     |         | ATA              | TATAATAA              | TAGAGTCT      | TAGTAT            | TGTTGA       | ATTATC     | GATCA--CG | CGTAAGAGTTTA   |
|                                                      |         | Section 355      |                       |               |                   |              |            |           |                |
|                                                      | (26197) | 26197            | 26210                 | 26220         | 26230             | 26240        | 26250      | 26260     | 26270          |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (24983) | ATCTTTT          | TTTTTTTT              | TGTAAGTTAT--- | TTGACAA           | CAAT         | AATAGG     | ACCTGG    | GATTTT-----CTA |
| SARS-CoV-2 Reference Genome Shuffle No.1 (25189)     |         | ATGAGAT          | TTGATTTGGAG           | TGTA          | CTGGAT            | CGATTG       | CTAA       | TA-AT     | CAGCAGATACGA   |
|                                                      |         | Section 356      |                       |               |                   |              |            |           |                |
|                                                      | (26271) | 26271            | 26280                 | 26290         | 26300             | 26310        | 26320      | 26330     | 26344          |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (25049) | ATTTTGCC         | ATT                   | TGGA          | GC                | CTTTGTA      | -TAGTT     | TAAT      | TGCTAC--TCTGAT |
| SARS-CoV-2 Reference Genome Shuffle No.1 (25262)     |         | ACAA             | TTA-ATT               | ACTATA        | CTAAC             | TAGTAGT      | GTAATC     | TGCGC     | GAGATAAC       |
|                                                      |         | Section 357      |                       |               |                   |              |            |           |                |
|                                                      | (26345) | 26345            | 26350                 | 26360         | 26370             | 26380        | 26390      | 26400     | 26418          |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (25118) | AAAGCAC          | TGTATCCA              | CTGCTGTG      | TTTTGTTCT         | ATTTCTTTTT   | TTTCTTTT   | TTTTTA    | -AATTTGAGAT    |
| SARS-CoV-2 Reference Genome Shuffle No.1 (25335)     |         | CACGA--          | TGTG                  | TCCA          | TGAC              | CAGATAT      | CGTACCA    | CTGGAGGAG | TTCTCTTTCCACA  |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

[illegible]

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                      |         |                                                                   |                      |       |       |       |       |       |       |  |  |
|------------------------------------------------------|---------|-------------------------------------------------------------------|----------------------|-------|-------|-------|-------|-------|-------|--|--|
|                                                      |         | Section 365                                                       |                      |       |       |       |       |       |       |  |  |
|                                                      | (26937) | 26937                                                             | 26950                | 26960 | 26970 | 26980 | 26990 | 27000 | 27010 |  |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (25692) | AAATTGTAC-TTACA-TTGTGA-ATGTGCTTGCTTTCAGCTGATATGCATA-TTCAT--GTA    | AATTTTGTGTG          |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (25899) | AAATTTTAGGTGTGAGTGTGTATACGTACATCATACAATTAAGATTTGTTCCTTAGAGAAATACC | TGACTT               |       |       |       |       |       |       |  |  |
|                                                      |         | Section 366                                                       |                      |       |       |       |       |       |       |  |  |
|                                                      | (27011) | 27011                                                             | 27020                | 27030 | 27040 | 27050 | 27060 | 27070 | 27084 |  |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (25760) | TCTTGT-CATGTGTGAGACAGAGTCTCACTCTGTCGCCAGGCTGGAATGCAGTGGTACGGTC    | TTGGATCACT           |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (25973) | TATAGCGCATATCTTAAAGTTTCTTGGTGCTCGTCACTCTAGTGTGACATG-AGTACGAAGTTT  | TTCGATAAC            |       |       |       |       |       |       |  |  |
|                                                      |         | Section 367                                                       |                      |       |       |       |       |       |       |  |  |
|                                                      | (27085) | 27085                                                             | 27090                | 27100 | 27110 | 27120 | 27130 | 27140 | 27158 |  |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (25833) | GCGACCTCCACCCCGCGCTCTGAGTTCAAGCTGTTCCTCCACCT-CAGCCCTCCCAAGTAGCTGG | GACTACATGC           |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (26046) | GGGTATGTATGAACCTGACGCTATAGGGGATATTCTCTTGTATATGCGGAATTGCTTGT-GCAGG | ---TACATGC           |       |       |       |       |       |       |  |  |
|                                                      |         | Section 368                                                       |                      |       |       |       |       |       |       |  |  |
|                                                      | (27159) | 27159                                                             | 27170                | 27180 | 27190 | 27200 | 27210 | 27220 | 27232 |  |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (25906) | ATACAACACCATGCTGCTGCT-AAAGTTTGTATTTTTTAGTAGAGATGGGGTTTCACCATGT    | TGGTCAGGCTGCTC       |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (26116) | -----CAACCTGCTGCATTAAAGTGAAATACCGATATCTGCTAGTCTCTAAGAATAAACCTG    | ATCTAGCTGATA         |       |       |       |       |       |       |  |  |
|                                                      |         | Section 369                                                       |                      |       |       |       |       |       |       |  |  |
|                                                      | (27233) | 27233                                                             | 27240                | 27250 | 27260 | 27270 | 27280 | 27290 | 27306 |  |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (25979) | TTGAACCTCTGACCTCAGGTGATCCACCCACCTCA-----GCTCCTCCAAAGTACTGGGAT     | TTACAAAGCTGAGCCA     |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (26185) | TGGCTTTTTCAGTGGTTTTTTTGACACAGTCTGTTTGAACCTAGGCTCGAAGGTACC-----    | TAACAACTGAGAGCTA     |       |       |       |       |       |       |  |  |
|                                                      |         | Section 370                                                       |                      |       |       |       |       |       |       |  |  |
|                                                      | (27307) | 27307                                                             | 27320                | 27330 | 27340 | 27350 | 27360 | 27370 | 27380 |  |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (26049) | CCAC-GCGTGGCCATATTCAATGTACATTTCATGG--GTTAATGTTCTTTGATATTGTCAT--   | TGATATTTTC           |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (26255) | TCAATTGTGAATCAATCTGTCTCATCATTTGCCGTCCAAATCAATCTCGTATGAGTTTGTCCCA  | TCAATGCG             |       |       |       |       |       |       |  |  |
|                                                      |         | Section 371                                                       |                      |       |       |       |       |       |       |  |  |
|                                                      | (27381) | 27381                                                             | 27390                | 27400 | 27410 | 27420 | 27430 | 27440 | 27454 |  |  |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (26117) | TCAACCATCTTCAAGAAAGAGCTTCTTGAAGCAGTGTGCTTTGTGTAAAGAACAATT         | CAGGCACTTAACAGAA     |       |       |       |       |       |       |  |  |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (26329) | TTGATCATCATCTGCT---TGTTGTACCAGAGCAGCAGAGTATAATGTCTTGTCCGC         | AAGGCTACCATGAATCGTGT |       |       |       |       |       |       |  |  |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                      |         |                                                                              |                                                                   |                                          |                            |                              |               |                |              |             |
|------------------------------------------------------|---------|------------------------------------------------------------------------------|-------------------------------------------------------------------|------------------------------------------|----------------------------|------------------------------|---------------|----------------|--------------|-------------|
|                                                      |         |                                                                              |                                                                   |                                          |                            |                              |               |                |              | Section 372 |
|                                                      | (27455) | 27455                                                                        | 27460                                                             | 27470                                    | 27480                      | 27490                        | 27500         | 27510          | 27528        |             |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (26191) | AAGTCTGGATTTT-ATTAT-TCAATAAATAAATCAA                                         | CTTGACACA                                                         | AAAAAGTATAATAAAGAGGGGA-GTGA              | AGT                        |                              |               |                |              |             |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (26400) | ATCTGCGGATCCTCATAA                                                           | TAAC                                                              | TGAGAAA                                  | GAAC                       | TGTCCTCGTAATC                | AAAA          | TGA--ATGAATAGG | TCAAGTAACA   |             |
|                                                      |         |                                                                              |                                                                   |                                          |                            |                              |               |                |              | Section 373 |
|                                                      | (27529) | 27529                                                                        | 27540                                                             | 27550                                    | 27560                      | 27570                        | 27580         | 27590          | 27602        |             |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (26262) | GGGACAGGTT                                                                   | AAAAT--AGTTGATTTAGTGGAATCTCATTTTGTGTTATTATAAACACAGT--GTTAAAGCATGT |                                          |                            |                              |               |                |              |             |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (26472) | GCCCCCGGTT                                                                   | CCGCCCAAGCGGTGTGTTGTTT                                            | TTCGGAATAGTTGAATGT                       | CGAAGCTTTTACGTTTAAAGTAACGA |                              |               |                |              |             |
|                                                      |         |                                                                              |                                                                   |                                          |                            |                              |               |                |              | Section 374 |
|                                                      | (27603) | 27603                                                                        | 27610                                                             | 27620                                    | 27630                      | 27640                        | 27650         | 27660          | 27676        |             |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (26332) | GTATAAAACACGTGGTAAGGATGTAGAAAGGATATTTAGTAAGGTATTAAATAGTCATATTTTA-ATGAATGGAGT |                                                                   |                                          |                            |                              |               |                |              |             |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (26546) | ATG---ACACGTGAT                                                              | TACGAACGGACAGGTATAA--ACTACC                                       | GTTC                                     | TAA                        | GTGCCAGAGAGAGATTAT           | ACTACTACC     |                |              |             |
|                                                      |         |                                                                              |                                                                   |                                          |                            |                              |               |                |              | Section 375 |
|                                                      | (27677) | 27677                                                                        | 27690                                                             | 27700                                    | 27710                      | 27720                        | 27730         | 27740          | 27750        |             |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (26405) | TATAGGGTTTTCTCTACCTT-GATAGTCAGTCAACTA-GAAAACCCTTCT-GTTG-AATATCTTTCTAAAGAGT   |                                                                   |                                          |                            |                              |               |                |              |             |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (26615) | TACCGAGGAAACCCAGCGGACGTTTACCAATCAA                                           | TGAAGAAAACC                                                       | AAACTCTG                                 | TAGTAATACATCTGTAA          | TAGGT                        |               |                |              |             |
|                                                      |         |                                                                              |                                                                   |                                          |                            |                              |               |                |              | Section 376 |
|                                                      | (27751) | 27751                                                                        | 27760                                                             | 27770                                    | 27780                      | 27790                        | 27800         | 27810          | 27824        |             |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (26475) | -GCCCTTCTTCTTG-TCTCAGGAGAGGTTTCATTGCACATATTTGACTCTTTATTTGATAAATTTAGGGTCTTTA  |                                                                   |                                          |                            |                              |               |                |              |             |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (26689) | TGCTGAATCTTACATTATACCTTTATGATTCTCTA-ACGAATGAAA---                            | TTTCGCTATA                                                        | AAACAAAGGTCTTT                           |                            |                              |               |                |              |             |
|                                                      |         |                                                                              |                                                                   |                                          |                            |                              |               |                |              | Section 377 |
|                                                      | (27825) | 27825                                                                        | 27830                                                             | 27840                                    | 27850                      | 27860                        | 27870         | 27880          | 27898        |             |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (26547) | CAAATGTTAGAAATCCATT                                                          | TTGACATCCATTC                                                     | TCAATTATAGGTGTTTGAAAAA--TGGTAACTTTCTGTGA |                            |                              |               |                |              |             |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (26759) | CGCAATT                                                                      | TTATAA-CTCATT                                                     | GCTAC                                    | TA--ATCGTGTTCATAGGTGTTT    | AGATCGTCTGGTTAA              | TAATAC        | TGA            |              |             |
|                                                      |         |                                                                              |                                                                   |                                          |                            |                              |               |                |              | Section 378 |
|                                                      | (27899) | 27899                                                                        | 27910                                                             | 27920                                    | 27930                      | 27940                        | 27950         | 27960          | 27972        |             |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (26618) | GATGTGC                                                                      | CAT                                                               | TGC                                      | AAACAGGAATGT               | TTTCATGCAGGTACACAGTCTATTTATA | TTGTACCTTTGAA | TAGAAA         |              |             |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (26830) | -ACG---                                                                      | CAATG                                                             | TAGATA                                   | TC                         | AATCATT--AT--AGGTAA          | CGGACCC       | -----TTATAC    | TTGAAATAGACA |             |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                       |         |                              |             |          |         |                 |                |          |                           |             |                      |      |      |       |       |      |     |     |       |       |     |        |     |     |     |     |     |     |    |     |    |     |   |
|-------------------------------------------------------|---------|------------------------------|-------------|----------|---------|-----------------|----------------|----------|---------------------------|-------------|----------------------|------|------|-------|-------|------|-----|-----|-------|-------|-----|--------|-----|-----|-----|-----|-----|-----|----|-----|----|-----|---|
|                                                       |         |                              |             |          |         |                 |                |          |                           | Section 379 |                      |      |      |       |       |      |     |     |       |       |     |        |     |     |     |     |     |     |    |     |    |     |   |
|                                                       | (27973) | 27973                        | 27980       | 27990    | 28000   | 28010           | 28020          | 28030    | 28046                     |             |                      |      |      |       |       |      |     |     |       |       |     |        |     |     |     |     |     |     |    |     |    |     |   |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (26692) | GAGGCACACTTCAGAAAGTTAAGAACTT | AGAA--TTA   | AAAGGCC  | TC      | CCCACTGGCCATAGC | AGCACCCC       | TAGCTCA  | C                         |             |                      |      |      |       |       |      |     |     |       |       |     |        |     |     |     |     |     |     |    |     |    |     |   |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (26889) | CGGAATTATAAATCTTGTTC         | CA-AGAA     | GGTTA    | CGAAAT  | TCAG            | CGACTATTTACCTT | A-----   | TATATTAT                  |             |                      |      |      |       |       |      |     |     |       |       |     |        |     |     |     |     |     |     |    |     |    |     |   |
|                                                       |         |                              |             |          |         |                 |                |          |                           | Section 380 |                      |      |      |       |       |      |     |     |       |       |     |        |     |     |     |     |     |     |    |     |    |     |   |
|                                                       | (28047) | 28047                        | 28060       | 28070    | 28080   | 28090           | 28100          | 28110    | 28120                     |             |                      |      |      |       |       |      |     |     |       |       |     |        |     |     |     |     |     |     |    |     |    |     |   |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (26764) | AACCAGTTGAAGGTGGTTTTGGTGT    | GAA         | CACTAAGA | -TG     | CCCCCTCTCTG     | GTTGAATTG      | GGGCT    | GGTTTCAGCCC               |             |                      |      |      |       |       |      |     |     |       |       |     |        |     |     |     |     |     |     |    |     |    |     |   |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (26955) | GTTTCTTTA                    | ACGCAAGTTTT | CACTA    | GAA     | TAC             | AAGCGTATAATC   | TGCGT    | GTTTTCGATGAACCGGATAAACTAC |             |                      |      |      |       |       |      |     |     |       |       |     |        |     |     |     |     |     |     |    |     |    |     |   |
|                                                       |         |                              |             |          |         |                 |                |          |                           | Section 381 |                      |      |      |       |       |      |     |     |       |       |     |        |     |     |     |     |     |     |    |     |    |     |   |
|                                                       | (28121) | 28121                        | 28130       | 28140    | 28150   | 28160           | 28170          | 28180    | 28194                     |             |                      |      |      |       |       |      |     |     |       |       |     |        |     |     |     |     |     |     |    |     |    |     |   |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (26837) | CACCTCCCTCCCGGC              | CAGG--TG    | CCATT    | TTGCT   | CGTAAC          | CCCCTGT        | AACAGCCC | TGCAAGACA                 | CAGATAAC    | ATT                  |      |      |       |       |      |     |     |       |       |     |        |     |     |     |     |     |     |    |     |    |     |   |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (27029) | TAGCTACGAGCAGTG              | CAT         | GAA      | TT      | CGTAC           | TTCTA          | CGTAAG   | CCTCT                     | TGAG----    | TGATAGAGGCAGGCGGAATT |      |      |       |       |      |     |     |       |       |     |        |     |     |     |     |     |     |    |     |    |     |   |
|                                                       |         |                              |             |          |         |                 |                |          |                           | Section 382 |                      |      |      |       |       |      |     |     |       |       |     |        |     |     |     |     |     |     |    |     |    |     |   |
|                                                       | (28195) | 28195                        | 28200       | 28210    | 28220   | 28230           | 28240          | 28250    | 28268                     |             |                      |      |      |       |       |      |     |     |       |       |     |        |     |     |     |     |     |     |    |     |    |     |   |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (26909) | T                            | TATTT       | TTTTT    | AAAA    | GTTG            | TTAG           | TC       | CCC                       | TAA         | ACC                  | AAAG | GCAA | CAT   | ATA   | CT   | G   | CAG | AAAT  | AAAA  | AAG | TTAGT  | CAT | A   |     |     |     |     |    |     |    |     |   |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (27098) | CTGTG                        | T           | CGG-     | ACAA    | GTT             | ATC--          | TC       | AGT                       | TTTA--      | AT                   | AGG  | GCAA | TCA   | ATAG- | GATT | ACC | TTT | CA--  | TTAGT | ACT | C      |     |     |     |     |     |     |    |     |    |     |   |
|                                                       |         |                              |             |          |         |                 |                |          |                           | Section 383 |                      |      |      |       |       |      |     |     |       |       |     |        |     |     |     |     |     |     |    |     |    |     |   |
|                                                       | (28269) | 28269                        | 28280       | 28290    | 28300   | 28310           | 28320          | 28330    | 28342                     |             |                      |      |      |       |       |      |     |     |       |       |     |        |     |     |     |     |     |     |    |     |    |     |   |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (26983) | GCAAA                        | GGA         | GA       | AGTAAC  | AGTAT           | CTG            | GTT      | TTAAT                     | AA          | TAG                  | CTCA | TAT  | TC    | CATT  | GGT  | AC- | AT  | ATT   | ACAA  | GGG | C      |     |     |     |     |     |     |    |     |    |     |   |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (27164) | GGTAA                        | TAA         | TGA      | ATGTA   | AATTT           | TAT            | GAC      | TTAAT                     | TAG         | CA                   | CTCA | AT   | TAT   | CT    | CATT | CAA | AC  | AC    | AGTT  | GT  | ATAA-- | CA  |     |     |     |     |     |    |     |    |     |   |
|                                                       |         |                              |             |          |         |                 |                |          |                           | Section 384 |                      |      |      |       |       |      |     |     |       |       |     |        |     |     |     |     |     |     |    |     |    |     |   |
|                                                       | (28343) | 28343                        | 28350       | 28360    | 28370   | 28380           | 28390          | 28400    | 28416                     |             |                      |      |      |       |       |      |     |     |       |       |     |        |     |     |     |     |     |     |    |     |    |     |   |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (27056) | AA                           | ACT         | CAAC     | T       | AAT             | TT             | ATTT     | AAAAA                     | AA          | AAGA                 | AGC  | GT   | GG    | AC    | AGT  | GG  | CT  | CA    | CG    | C   | T      | AT  | T-- | G   | CT  | CA  | G   | CA | CTT | T  | G   |   |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (27236) | AA                           | TAC         | CAAC     | G       | AGG             | TTT            | TGG      | ATTTG                     | AG          | AT                   | CAT  | CAT  | G     | AGG   | A    | TG  | GT  | AT    | CT    | AC  | CG     | C   | AT  | C   | TAA | G   | ATT | AA | T   | G  | CAT | T |
|                                                       |         |                              |             |          |         |                 |                |          |                           | Section 385 |                      |      |      |       |       |      |     |     |       |       |     |        |     |     |     |     |     |     |    |     |    |     |   |
|                                                       | (28417) | 28417                        | 28430       | 28440    | 28450   | 28460           | 28470          | 28480    | 28490                     |             |                      |      |      |       |       |      |     |     |       |       |     |        |     |     |     |     |     |     |    |     |    |     |   |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (27128) | GGA                          | GGCCAA      | G        | GCAGGAG | GAT             | CGC            | TTAA     | AGCCAG                    | GAG         | TT                   | CA   | GA   | CCAT- | C     | TG   | GG  | CA  | ATAAA | GTG   | AG  | ACT    | T   | TG  | T   |     |     |     |    |     |    |     |   |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (27310) | GTA                          | CTG         | TTC      | G       | TATTTGT         | GAT            | GAA      | TTAA                      | G           | TTAGT                | G    | TAT  | TT    | AA    | AC   | CCA | CA  | C     | TG    | TT  | C      | CG  | TTT | GTG | G   | CCG | A   | T  | CC  | TA |     |   |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                       |                                                  |         |        |        |         |       |       |        |       |        |       |             |        |        |        |       |        |       |       |        |      |         |        |
|-------------------------------------------------------|--------------------------------------------------|---------|--------|--------|---------|-------|-------|--------|-------|--------|-------|-------------|--------|--------|--------|-------|--------|-------|-------|--------|------|---------|--------|
|                                                       |                                                  |         |        |        |         |       |       |        |       |        |       | Section 386 |        |        |        |       |        |       |       |        |      |         |        |
|                                                       |                                                  | (28491) | 28491  | 28500  | 28510   | 28520 | 28530 | 28540  | 28550 | 28564  |       |             |        |        |        |       |        |       |       |        |      |         |        |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (27201)                                          | CCTAC   | AAAA   | AAAA   | TTT     | GTTCA | AAA   | ATTAG  | CAG   | GGGG   | CCGG  | GTGC        | -AG    | TGG    | CCC    | ACAC  | CTGT   | TTAC  | CCCC  | AC     | ACT  | TTA     |        |
|                                                       | SARS-CoV-2 Reference Genome Shuffle No.1 (27384) | CCTC    | CGTT   | AAAA   | CGT     | ---   | AGG   | ATTCA  | CGG   | TTTC   | CTTT  | GTTC        | TAT    | TGA    | CGG    | ATAC  | AGT    | TTG   | CGATG | AC     | TTGT | TGT     |        |
|                                                       |                                                  |         |        |        |         |       |       |        |       |        |       | Section 387 |        |        |        |       |        |       |       |        |      |         |        |
|                                                       |                                                  | (28565) | 28565  | 28570  | 28580   | 28590 | 28600 | 28610  | 28620 | 28638  |       |             |        |        |        |       |        |       |       |        |      |         |        |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (27274)                                          | GGAGGC  | TGAG   | GC     | --      | AGG   | TGG   | ATCA   | CTT   | GAG    | CC    | CAG         | GACT   | TCAT   | TACC   | AGCCT | GGG    | CAAC  | ATG   | CCG    | GAGA | CTCC    | ATC    |
|                                                       | SARS-CoV-2 Reference Genome Shuffle No.1 (27454) | CATCAT  | TGG    | GC     | CTT     | AAA   | TGG   | GTGA   | ---   | GAG    | AGCT  | GA          | ATTACA | ACGG   | AAAA   | GGAC  | GACT   | TTGAG | CAT   | CT     | TG   | AGC     |        |
|                                                       |                                                  |         |        |        |         |       |       |        |       |        |       | Section 388 |        |        |        |       |        |       |       |        |      |         |        |
|                                                       |                                                  | (28639) | 28639  | 28650  | 28660   | 28670 | 28680 | 28690  | 28700 | 28712  |       |             |        |        |        |       |        |       |       |        |      |         |        |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (27346)                                          | TCAACAA | CAAA   | TACG   | AAAA    | AA    | TAA   | ACGAG  | GTGT  | GTTG   | GC    | TAA         | CTGT   | GGT    | TCC    | CCCCT | ACTC   | AGG   | GATC  | GAAGC  |      |         |        |
|                                                       | SARS-CoV-2 Reference Genome Shuffle No.1 (27525) | TGTGTGG | CATT   | TG     | CGC     | AAA   | CAG   | TAC    | ----  | GCG    | AGTAA | GC          | GGA    | ACC    | CAAG   | GATT  | ACGTGA | ACTT  | AAG   | -GAT   | T    | GTAA    |        |
|                                                       |                                                  |         |        |        |         |       |       |        |       |        |       | Section 389 |        |        |        |       |        |       |       |        |      |         |        |
|                                                       |                                                  | (28713) | 28713  | 28720  | 28730   | 28740 | 28750 | 28760  | 28770 | 28786  |       |             |        |        |        |       |        |       |       |        |      |         |        |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (27420)                                          | AGGTGA  | ATTG   | CTTG   | AG      | CCCA  | GGAG  | ACGG   | AGG   | TTG    | CAG   | GAGA        | GC     | TGTGAT | CA     | CGC   | ACTG   | CAC   | TCC   | AGCCT  | GGG  | T       |        |
|                                                       | SARS-CoV-2 Reference Genome Shuffle No.1 (27594) | ACCCG   | AGT    | GACT   | ATT     | G     | ---   | GGTAA  | AGA   | AGA    | GAAC  | CG          | GAGA   | CG     | TGACT  | ATT   | CA     | TAT   | CAAT  | --     | AG   | AAATAAT | C      |
|                                                       |                                                  |         |        |        |         |       |       |        |       |        |       | Section 390 |        |        |        |       |        |       |       |        |      |         |        |
|                                                       |                                                  | (28787) | 28787  | 28800  | 28810   | 28820 | 28830 | 28840  | 28850 | 28860  |       |             |        |        |        |       |        |       |       |        |      |         |        |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (27494)                                          | ACA     | GA     | GCGA   | GACCC   | TGA   | CA    | AAAA   | AAAA  | AAAGG  | GAT   | TTCTG       | GTGT   | CT     | -AG    | CGT   | TG     | CGGT  | TG    | T      | ---  | TCTAA   | ATGC   |
|                                                       | SARS-CoV-2 Reference Genome Shuffle No.1 (27662) | TTTG    | -GCGA  | TTATT  | TCA     | GT    | AAA   | GGC    | AAAGG | --     | TTACA | GTGT        | CTC    | CAG    | TTTAA  | CAC   | TGG    | TGAGA | TCT   | GC     | AT   | CT      |        |
|                                                       |                                                  |         |        |        |         |       |       |        |       |        |       | Section 391 |        |        |        |       |        |       |       |        |      |         |        |
|                                                       |                                                  | (28861) | 28861  | 28870  | 28880   | 28890 | 28900 | 28910  | 28920 | 28934  |       |             |        |        |        |       |        |       |       |        |      |         |        |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (27563)                                          | CTTCT   | TAGC   | AGT    | TTTTATT | G     | CAC   | TAT    | AA    | TTGG   | -CAT  | ACTAT       | TCA    | --G    | TT     | ACCC  | ATGT   | AGAG  | TGT   | TACA   | AT   | TCA     | AT     |
|                                                       | SARS-CoV-2 Reference Genome Shuffle No.1 (27733) | CATTAT  | TTTG   | AGT    | CAATAG  | G     | TAC   | GGT    | TACA  | GGA    | CAT   | CTCGC       | TG     | ATAC   | TTT    | AAGG  | ATTA   | AGAC  | T     | TAT    | AT   | CTC     | A      |
|                                                       |                                                  |         |        |        |         |       |       |        |       |        |       | Section 392 |        |        |        |       |        |       |       |        |      |         |        |
|                                                       |                                                  | (28935) | 28935  | 28940  | 28950   | 28960 | 28970 | 28980  | 28990 | 29008  |       |             |        |        |        |       |        |       |       |        |      |         |        |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (27634)                                          | GGG     | ----   | GTTTTA | AAAA    | TT    | AGTAT | AT     | TC    | ACAGAG | TT    | G           | TACA   | ACC    | AT     | TCC   | TAC    | AGT   | CA    | ATTTTT | TT   | --      | TTTTTT |
|                                                       | SARS-CoV-2 Reference Genome Shuffle No.1 (27806) | GAGATAA | GTTTTA | GAGG   | T       | AGTAT | TATC  | GTTTTT | TAG   | GTGGT  | AG    | ATATA       | TAC    | TAT    | ATTTTT | G     | TT     | CGT   | CT    | ATT    |      |         |        |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                      |         |                         |           |              |              |             |             |            |                               |               |       |
|------------------------------------------------------|---------|-------------------------|-----------|--------------|--------------|-------------|-------------|------------|-------------------------------|---------------|-------|
| Section 393                                          |         |                         |           |              |              |             |             |            |                               |               |       |
|                                                      | (29009) | 29009                   | 29020     | 29030        | 29040        | 29050       | 29060       | 29070      | 29082                         |               |       |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (27702) | TGAGACGGAGTTTCGCTCTTGTG | CCAGGC    | AAAGAGTG     | CAATGTTGT    | GATCTCAGCTC | ACTGCA      | ACCTCT     | TGCCCT                        |               |       |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (27880) | TCAATAGTCAATGCTTCTTTAAT | CTCAATTAA | ---          | TTCAA        | ---         | GAGTTTCG    | AACAT      | ACTGTTAAATGTAGCG              |               |       |
| Section 394                                          |         |                         |           |              |              |             |             |            |                               |               |       |
|                                                      | (29083) | 29083                   | 29090     | 29100        | 29110        | 29120       | 29130       | 29140      | 29156                         |               |       |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (27776) | CCCGGGTTCAGTGA          | TTCTCC    | TGCTCTCAGCC  | TC           | CCAA        | TAGCTGGG    | ATTACAG    | CGTCTGCCACCACACCCGGC          |               |       |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (27946) | AATTGGT---              | AGTTAAAGT | --           | TGACTCTAAGTC | G-AACTCAAT  | TACTAAA     | AGACGC     | AGTGAATTTATGCGATAT            |               |       |
| Section 395                                          |         |                         |           |              |              |             |             |            |                               |               |       |
|                                                      | (29157) | 29157                   | 29170     | 29180        | 29190        | 29200       | 29210       | 29220      | 29230                         |               |       |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (27850) | TAATTTTGTA              | TTTTAGTAG | AGACGAGGC    | TTCTCCA      | TGTTGGTCAG  | GC          | TGGTCT     | TGAACCTCCTGGCCTCGGGTG         |               |       |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (28014) | TGATTTCT                | TATTTG    | TGTGTAGGA    | AATTTCT      | GG-TGAACT   | TCAGTA      | TATGCTACG  | CAGCTGGAGAGGAAT-              |               |       |
| Section 396                                          |         |                         |           |              |              |             |             |            |                               |               |       |
|                                                      | (29231) | 29231                   | 29240     | 29250        | 29260        | 29270       | 29280       | 29290      | 29304                         |               |       |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (27924) | ATCCGCCCGC              | CTTG      | GCTCCC       | AAAGTGCTGG   | GATTACAGAC  | GTGA---     | GCCACTGCG  | CCAGCTAAATTCCTACA             |               |       |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (28085) | AGATGATATG              | CTTG      | CTGGAA-AAAGT | CTATTGAAA    | ACTGAGGTG   | TTTCGACAA   | AGTCTCTT   | CAGGTTTACATA                  |               |       |
| Section 397                                          |         |                         |           |              |              |             |             |            |                               |               |       |
|                                                      | (29305) | 29305                   | 29310     | 29320        | 29330        | 29340       | 29350       | 29360      | 29378                         |               |       |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (27995) | GTCAATTTT               | AGATATT   | TT           | CATCAGCT     | -GAGAGG     | AAACCTG     | CATCTATTAG | CAGCCACTGCTGTCTCTCCTT         |               |       |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (28158) | TTGCAC                  | TACAA     | ATCCATT      | GCTGTGAT     | TGTGATTGGG  | CACGC       | CGCTGTTGAG | TAGACTCTGTTCTCTCTCAAT         |               |       |
| Section 398                                          |         |                         |           |              |              |             |             |            |                               |               |       |
|                                                      | (29379) | 29379                   | 29390     | 29400        | 29410        | 29420       | 29430       | 29440      | 29452                         |               |       |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (28067) | GCCCC                   | TGACTCCA  | G-----       | CAAC         | CAGTGATCTCC | TTTCT       | -GTCTATT   | TGCCTATTCTAGAT---ATCTAAAAA    |               |       |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (28232) | GGTAGTA                 | ACGTGG    | GCAATCT      | CAAC         | ACGGAA      | AGCAAA      | TCTATTGTGA | ATTCCTAAGTTCTAGAGTGGGTATCATAG |               |       |
| Section 399                                          |         |                         |           |              |              |             |             |            |                               |               |       |
|                                                      | (29453) | 29453                   | 29460     | 29470        | 29480        | 29490       | 29500       | 29510      | 29526                         |               |       |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (28132) | CCTTC                   | TAAATG    | TTTACGGAAC   | CATAT        | CATTATT     | AGATGGAA    | CCATCAATGA | GTACTTGAC                     | CAGTA-ATTTCCA |       |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (28306) | TCTTC                   | GCA       | GAAATTC      | CAATGATTAG   | GACAAG      | AAATAAGATAT | CATGTAC    | GC                            | GAGCTTCATAC   | TGTAG |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                      |         |                                                                               |       |       |       |       |       |       |             |
|------------------------------------------------------|---------|-------------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------------|
|                                                      |         | Section 400                                                                   |       |       |       |       |       |       |             |
|                                                      |         | (29527)                                                                       | 29527 | 29540 | 29550 | 29560 | 29570 | 29580 | 29590 29600 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (28205) | TACATATTTTGGATGAAGGCAAGGGTATTGTTTCTCTCTCTCAGGCACCACTCGCGGAACACTGCTAAACA       |       |       |       |       |       |       |             |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (28380) | GAGGTATCTCTTCAAATAATCAATAGCGTCGCCTAACCTT-TAC-CGGAGGTCACGCTATAACAATGTTTCTAAACA |       |       |       |       |       |       |             |
|                                                      |         | Section 401                                                                   |       |       |       |       |       |       |             |
|                                                      |         | (29601)                                                                       | 29601 | 29610 | 29620 | 29630 | 29640 | 29650 | 29660 29674 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (28279) | CCGATATGTGGAGGTGTGTT--CCCCACTAC----TCAGGAGGC----TGAGGTGGGAGGATGGCTTAAGCCCA    |       |       |       |       |       |       |             |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (28452) | ATTACTTGCCAGGGCTCGTTGGCTCCGTGTGCATTGTGGAATCAAAATAGAGTACCAGCCAAATTTATTACA      |       |       |       |       |       |       |             |
|                                                      |         | Section 402                                                                   |       |       |       |       |       |       |             |
|                                                      |         | (29675)                                                                       | 29675 | 29680 | 29690 | 29700 | 29710 | 29720 | 29730 29748 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (28343) | GGA--GTTGGAGGTGTCAGTGAACCGAGATTATGC---CACTGCCTCCATGCTGGGTGACAGAGAAAACCC       |       |       |       |       |       |       |             |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (28526) | ACATTGTTGTTTTCTGTAGGATAACCGCGGTTTCATCATGCTCAAGAGTTCTTTGAGGTTTAATTAGAGGGAATGCG |       |       |       |       |       |       |             |
|                                                      |         | Section 403                                                                   |       |       |       |       |       |       |             |
|                                                      |         | (29749)                                                                       | 29749 | 29760 | 29770 | 29780 | 29790 | 29800 | 29810 29822 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (28412) | ATCTCAAAAATAAAAAGTAGTAGGTTGTCACCTGCATTTCTCAGCAGCTGGCAGTGAATTGAAGG--TTTACAG    |       |       |       |       |       |       |             |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (28600) | ATATTAAAAACCAATTCAGTAATAACAGATCGCGTTACTTTT-----AGATAAC--TGAATTTCATGCTTACGAG   |       |       |       |       |       |       |             |
|                                                      |         | Section 404                                                                   |       |       |       |       |       |       |             |
|                                                      |         | (29823)                                                                       | 29823 | 29830 | 29840 | 29850 | 29860 | 29870 | 29880 29896 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (28484) | GACTCCCCTCTTGAATTTG--GTTAACTTGC TAGAGCGGGTCAGAAAACACAGAAATGCTACTTA CATTTGCTA  |       |       |       |       |       |       |             |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (28667) | TGTGGATCAATTCGTTCCCAATAATAACTTAGTG-GTATCATTCACGACCTGATGT-----CATGCGCTT        |       |       |       |       |       |       |             |
|                                                      |         | Section 405                                                                   |       |       |       |       |       |       |             |
|                                                      |         | (29897)                                                                       | 29897 | 29910 | 29920 | 29930 | 29940 | 29950 | 29960 29970 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (28556) | GTTTATTATAAAGGATATCATAAAGGATACAGAAGAACAGCAGATGGAGAGATTCAAGGAACGTGGGAGGG       |       |       |       |       |       |       |             |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (28732) | TTGAATAAGTAATG--TATTATAAAGTAAGGAAGAAGATAAGCTTGAATGTAT-----GAACGTGTTTGGTT      |       |       |       |       |       |       |             |
|                                                      |         | Section 406                                                                   |       |       |       |       |       |       |             |
|                                                      |         | (29971)                                                                       | 29971 | 29980 | 29990 | 30000 | 30010 | 30020 | 30030 30044 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (28630) | GCACGGAGCTTTCATGCTCTCTCCAGGCAACGCTACCTCCAGGAACCTCCAACGGTTCAGCTGTCGGGAAGCT     |       |       |       |       |       |       |             |
| SARS-CoV-2 Reference Genome Shuffle No.1             | (28797) | TCACGCG-----TCGTGCGC-----AGCGCGGGACAGATAAGTAAATATAT-----TGAGATAATATTAACCT     |       |       |       |       |       |       |             |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                              |                                                                                                                                                                 |                                                                                                           |                   |                 |                                                                   |       |       |       |             |       |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------|-----------------|-------------------------------------------------------------------|-------|-------|-------|-------------|-------|
|                                                              | (30045)                                                                                                                                                         | 30045                                                                                                     | 30050             | 30060           | 30070                                                             | 30080 | 30090 | 30100 | Section 407 | 30118 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... (28704) | C T C T G A A C C T T                                                                                                                                           | G T C A T T T T G G A                                                                                     | G T T T A T G G A | A G C T T T T T | T A T G C A G T C A T G A T T G A T T A C A T C A C A G C C C T T |       |       |       |             |       |
| SARS-CoV-2 Reference Genome Shuffle No.1 (28856)             | T T T T G C A G A C - G A C T T T G G C T C                                                                                                                     | G T G A T G T C C T A A T T T A C G T C T A A A T A G A C A C A T A G A A A A A G T G A C A C T G C A A A |                   |                 |                                                                   |       |       |       |             |       |
|                                                              | (30119)                                                                                                                                                         | 30119                                                                                                     | 30130             | 30140           | 30150                                                             | 30160 | 30170 | 30180 | Section 408 | 30192 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... (28778) | G G T G A T C A G C T T A A C C T T C A G C T T C G G T C T C C T C C T G A G G G A T G G G T G T C C C A C C C C G C T A A T C C T - - G C T                   |                                                                                                           |                   |                 |                                                                   |       |       |       |             |       |
| SARS-CoV-2 Reference Genome Shuffle No.1 (28929)             | T A T G G T C A G C A A C T A A T T G C A C T C G G G A C T A A C A C A C G C T A A G A A - G T G C T A G C T A T C A T A G C A T T T T C T C                   |                                                                                                           |                   |                 |                                                                   |       |       |       |             |       |
|                                                              | (30193)                                                                                                                                                         | 30193                                                                                                     | 30200             | 30210           | 30220                                                             | 30230 | 30240 | 30250 | Section 409 | 30266 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... (28850) | T G G T C T T T C T G G T G A C C - - - - A G C C C C T T T T C T G A A G C C A T C T A A G G G C C C C A G C C G C C A C T C A T C T - - - - C A               |                                                                                                           |                   |                 |                                                                   |       |       |       |             |       |
| SARS-CoV-2 Reference Genome Shuffle No.1 (29002)             | G G G A C A T G T T T G T A C C A A A A A G G G A A A A T A C A C G A A T C A C A A A T T T T T G C C G G A C A A T A - T A A T G T T C A A C A                 |                                                                                                           |                   |                 |                                                                   |       |       |       |             |       |
|                                                              | (30267)                                                                                                                                                         | 30267                                                                                                     | 30280             | 30290           | 30300                                                             | 30310 | 30320 | 30330 | Section 410 | 30340 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... (28916) | T T A G C A - A A C A A A A G A T A C C A C G G G T C A A A A A A A A A A A A A G A C A A A G T A T G T T T G T G T G T G T G T G T G T G T G T G - T G T G T G |                                                                                                           |                   |                 |                                                                   |       |       |       |             |       |
| SARS-CoV-2 Reference Genome Shuffle No.1 (29075)             | T T A G A A G A A C A A A G A T T G C G A - G T C C G T A C G A A T T C A T T T T T A T T C T T T T A T A G A T G G T A C G A A A G A T A C A A C               |                                                                                                           |                   |                 |                                                                   |       |       |       |             |       |
|                                                              | (30341)                                                                                                                                                         | 30341                                                                                                     | 30350             | 30360           | 30370                                                             | 30380 | 30390 | 30400 | Section 411 | 30414 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... (28988) | T G T G T G T G T - G T G T G T G T G T G T G T G T A T T G T T G G G C T C A G A A A T - G A T A C C T G G A A A T A T G G T G C T T T G A                     |                                                                                                           |                   |                 |                                                                   |       |       |       |             |       |
| SARS-CoV-2 Reference Genome Shuffle No.1 (29148)             | A A T A A A T A C A G A G T A G C T T A G C G T A T A G A T T C C A G G T G T T A G G A A T C T T G A G C C G T G A G A C T A A T T A A A A T C G T             |                                                                                                           |                   |                 |                                                                   |       |       |       |             |       |
|                                                              | (30415)                                                                                                                                                         | 30415                                                                                                     | 30420             | 30430           | 30440                                                             | 30450 | 30460 | 30470 | Section 412 | 30488 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... (29060) | T A T G C T G A A C T C T C C A C C C T C A C A C T T T G T C T C T C C C A A A G C A C A G G A T G A G G C T C T T C T C T G C C G T T C C C T T A             |                                                                                                           |                   |                 |                                                                   |       |       |       |             |       |
| SARS-CoV-2 Reference Genome Shuffle No.1 (29222)             | C T A G T A G G A C T C G G G C A C C T A T T C C A A T A C G T C - C G G A A A T C A G A T T A T T A T A C - C T A G T G G A T T T A A G G T T A A             |                                                                                                           |                   |                 |                                                                   |       |       |       |             |       |
|                                                              | (30489)                                                                                                                                                         | 30489                                                                                                     | 30500             | 30510           | 30520                                                             | 30530 | 30540 | 30550 | Section 413 | 30562 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... (29134) | T C T A C C T A G A A A C T G A C C T A C C A G A G - A G G A A C A C A G T T G T C T T T G A T C C C T T T C T G A A A T G T C A T T A A C C A                 |                                                                                                           |                   |                 |                                                                   |       |       |       |             |       |
| SARS-CoV-2 Reference Genome Shuffle No.1 (29294)             | T C T T G T T C A G A T C C G T A A C A A C C A C T G C A C T C G C T C A C A C G G T T G G A A T T G T T T A C C C A G C T G G T - T G A A C C G               |                                                                                                           |                   |                 |                                                                   |       |       |       |             |       |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                      |         |             |       |       |       |       |       |       |       |
|------------------------------------------------------|---------|-------------|-------|-------|-------|-------|-------|-------|-------|
|                                                      |         | Section 414 |       |       |       |       |       |       |       |
|                                                      | (30563) | 30563       | 30570 | 30580 | 30590 | 30600 | 30610 | 30620 | 30636 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (29207) | G           | G     | G     | A     | C     | A     | T     | T     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (29367)     |         | G           | G     | A     | C     | C     | T     | G     | T     |
|                                                      |         | Section 415 |       |       |       |       |       |       |       |
|                                                      | (30637) | 30637       | 30650 | 30660 | 30670 | 30680 | 30690 | 30700 | 30710 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (29279) | C           | C     | A     | A     | C     | C     | T     | T     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (29439)     |         | --          | A     | A     | G     | G     | G     | A     | G     |
|                                                      |         | Section 416 |       |       |       |       |       |       |       |
|                                                      | (30711) | 30711       | 30720 | 30730 | 30740 | 30750 | 30760 | 30770 | 30784 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (29353) | T           | C     | C     | A     | T     | T     | C     | C     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (29503)     |         | G           | A     | T     | T     | A     | G     | T     | T     |
|                                                      |         | Section 417 |       |       |       |       |       |       |       |
|                                                      | (30785) | 30785       | 30790 | 30800 | 30810 | 30820 | 30830 | 30840 | 30858 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (29426) | A           | A     | G     | C     | G     | T     | C     | T     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (29577)     |         | T           | A     | T     | C     | G     | T     | C     | G     |
|                                                      |         | Section 418 |       |       |       |       |       |       |       |
|                                                      | (30859) | 30859       | 30870 | 30880 | 30890 | 30900 | 30910 | 30920 | 30932 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (29496) | A           | G     | T     | G     | G     | A     | T     | G     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (29634)     |         | A           | G     | C     | A     | T     | A     | G     | T     |
|                                                      |         | Section 419 |       |       |       |       |       |       |       |
|                                                      | (30933) | 30933       | 30940 | 30950 | 30960 | 30970 | 30980 | 30990 | 31006 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (29570) | A           | A     | G     | C     | T     | T     | A     | C     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (29693)     |         | A           | A     | G     | C     | T     | T     | A     | C     |
|                                                      |         | Section 420 |       |       |       |       |       |       |       |
|                                                      | (31007) | 31007       | 31020 | 31030 | 31040 | 31050 | 31060 | 31070 | 31080 |
| Homo sapiens chromosome 1 NC_000001.11: 11783698-... | (29643) | T           | T     | C     | T     | A     | A     | A     | G     |
| SARS-CoV-2 Reference Genome Shuffle No.1 (29759)     |         | T           | T     | C     | T     | A     | A     | A     | G     |

Homo sapiens chromosome 1 NC\_000001.11; 11783698-11817823 vs. SARS-CoV-2 Shuffle No.1

|                                                       |         |          |        |         |           |           |           |           |            |                     |             |
|-------------------------------------------------------|---------|----------|--------|---------|-----------|-----------|-----------|-----------|------------|---------------------|-------------|
|                                                       |         |          |        |         |           |           |           |           |            |                     | Section 421 |
|                                                       | (31081) | 31081    | 31090  | 31100   | 31110     | 31120     | 31130     | 31140     | 31154      |                     |             |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (29717) | CGAGTC   | TCAC   | CTGT    | CGCC      | TAGG      | CTGGA     | GTGCAG    | TAGCA      | CAATCT              |             |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (29824) | TATCTC   | AAAC   | GCTG    | CGGC      | -ATT      | CTATT     | GTGTGT    | TAAATT     | AGCCAGTCT           |             |
|                                                       |         |          |        |         |           |           |           |           |            |                     | Section 422 |
|                                                       | (31155) | 31155    | 31160  | 31170   | 31180     | 31190     | 31200     | 31210     | 31228      |                     |             |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (29791) | TCAA     | GC     | GATTCT  | CCTGCCT   | CAGCCACC  | CTAGTAGCT | GGGATTACA | AGTGTGTGCC | ACCACACCCACCTAATTTG |             |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (29897) | TATT     | GC     | T-----  |           |           |           |           |            |                     |             |
|                                                       |         |          |        |         |           |           |           |           |            |                     | Section 423 |
|                                                       | (31229) | 31229    | 31240  | 31250   | 31268     |           |           |           |            |                     |             |
| Homo sapiens chromosome 1 NC. 000001.11: 11783698-... | (29865) | TGTATTTT | TGGTAG | AGACGGG | GTTCGCCAT | GTTGGCCGG |           |           |            |                     |             |
| SARS-CoV-2 Reference Genome Shuffle No.1              | (29904) | -----    |        |         |           |           |           |           |            |                     |             |