

Supplementary Table 1. Real-Time PCR Primers for SARS-CoV-2 T expression.

Gene Symbol	UniGene ID	Interrogated Sequence <i>RefSeq/GenBank mRNA</i>	Detected Coding Transcripts	Amplicon Context Sequence	Chromosome Location	Amplicon Length	Annealing temperature (°C)	Efficiency (%)
SARS-CoV-2 S gene	Vi0791863 6_s1	Patented by Thermo Fisher Scientific (Waltham, MA, USA)					60	99
TNF	Hs.241570	NC_000006.11 NG_007462.1 NG_012010.1 NT_007592.15 NT_113891.2 NT_167244.1 NT_167245.1 NT_167246.1 NT_167247.1 NT_167248.1 NT_167249.1	ENST00000328965 ENST00000445232 ENST00000594551 ENST00000443707 ENST00000412275 ENST00000449264 ENST00000577810 ENST00000326294	GGGGTCTTCCAG CTGGAGAAGGGT GACCGACTCAGC GCTGAGATCAAT CGGCCCGACTAT CTCGACTTTGCC GAGTCTGGGCAG GTCTACTTTGGG ATCATTGCCCT GTGAGGAGGACG AACATC	6:31545204- 31545328	95	60	99

			ENST00000448781					
			ENST00000420425					
			ENST00000394126					
			ENST00000356271					
			ENST00000394128					
			ENST00000394127					
			ENST00000422942					
			ENST00000501516					
			ENST00000536318					
			ENST00000431269					
			ENST00000376122					
			ENST00000383496					
			ENST00000264203					
			ENST00000375144					
			ENST00000375142					
			ENST00000401084					
			ENST00000439554					

IL-6	Hs.654458	NC_000007.13 NG_011640.1 NT_007819.17	ENST00000404625 ENST00000426291 ENST00000401651 ENST00000407492 ENST00000401630 ENST00000406575 ENST00000258743 ENST00000420258	GTATACCTAGAGT ACCTCCAGAACA GATTTGAGAGTA GTGAGGAACAAG CCAGACTGTGCA GATGAGTACAAA AGTCCTGATCCA G TTCCTGCAGAA A	7:22769178- 22769276	69	60	98
ICAM1	Hs.643447	NC_000019.9 NG_007728.1 NG_012083.1 NT_011295.11	ENST00000264832 ENST00000423829	GCATTGTCCTCA GTCAGATACAAC AGCATTTGGGGC CATGGTACCTGC ACACCTAAAACA CTAGGCCACGCA TCTGATCTGTAGT CACATGACTAAG CCAAGAGGAAG GAGCAAGACTCA AGACATGA	19:10396090- 10396217	98	60	99
VCAM1	Hs.109225	NC_000001.10 NG_023034.2 NT_032977.9	ENST00000370119 ENST00000347652	GGAATTAACCAG GCTGGAAGAAGC AGAAAGGAAGT	1:101198189- 101200172	137	60	102

			ENST00000294728 ENST00000370115	GGAATTAATTATC CAAGTTACTCCA AAAGACATAAAA CTTACAGCTTTTC CTTCTGAGAGTG TCAAAGAAGGAG ACACTGTCATCAT CTCTTGACATGT GGAAATGTTCCA GAAACATGGATA ATCCTGAA				
RPS18	Hs.627414	NC_000006.11 NT_007592.15 NT_113891.2 NT_167245.1 NT_167247.1 NT_167248.1 NT_167249.1	ENST00000454021 ENST00000486781 ENST00000484321 ENST00000211372 ENST00000477055 ENST00000476288 ENST00000439602 ENST00000474973 ENST00000457341 ENST00000494232 ENST00000434122	GTGGAACGTGTG ATCACCATTATGC AGAATCCACGCC AGTACAAGATCC CAGACTGGTTCT TGAACAGACAGA AGGATGTAAAGG ATGGAAAATACA	6:33243742- 33243838	67	60	98

Supplementary Table 2. Flow cytometry analysis of HUVEC viability after incubation for 144 h with the COVID-19 RNA vaccine elasomeron. Anx: annexin; PI: propidium iodide. Data are percentages of total cells in the cell sample and are expressed as means $\pm$ SD of n = 3 independent replicates.

Cells	control	elasomeron 1 μ g/ml	elasomeron 3 μ g/ml
viable (Anx-PI-)	90,1 $\pm$ 2,1	91,2 $\pm$ 3,0	92,1 $\pm$ 1,0
early apoptotic (Anx+PI-)	5,6 $\pm$ 1,4	4,9 $\pm$ 1,8	3,8 $\pm$ 0,5
late apoptotic (Anx+PI+)	4,2 $\pm$ 0,7	3,7 $\pm$ 1,3	3,8 $\pm$ 0,5
necrotic (Anx-PI+)	0,1 $\pm$ 0,1	0,1 $\pm$ 0,0	0,2 $\pm$ 0,1

Supplementary Table 3. Real-time PCR assay of the Spike protein gene sequence in the DNA isolated from HUVEC after incubation with the COVID-19 RNA vaccine elasomeran. NC, negative control; HKG, housekeeping gene; nd: not detected. Data are cycle thresholds and are expressed as means $\pm$ SD of n = 2 independent replicates.

incubation time (h)	elasomeran 1 μg/ml	HKG	NC	HKG	elasomeran 3 μg/ml	HKG	NC	HKG	elasomeran cDNA 5 μg/ml	HKG
2	nd	13.1 $\pm$ 0.2	nd	13.2 $\pm$ 0.2	nd	11.2 $\pm$ 0.3	nd	12.4 $\pm$ 0.1	13.2 $\pm$ 0.5	30.9 $\pm$ 0.2
4	nd	13.5 $\pm$ 0.2	nd	13.4 $\pm$ 0.4	nd	11.3 $\pm$ 0.1	nd	12.1 $\pm$ 0.0	12.9 $\pm$ 0.1	31.2 $\pm$ 0.6
24	nd	13.2 $\pm$ 0.2	nd	13.0 $\pm$ 0.0	nd	11.2 $\pm$ 0.3	nd	12.2 $\pm$ 0.1	12.8 $\pm$ 0.4	31.2 $\pm$ 0.2
48	nd	13.5 $\pm$ 0.3	nd	13.3 $\pm$ 0.1	nd	11.3 $\pm$ 0.5	nd	12.1 $\pm$ 0.1	13.2 $\pm$ 0.2	30.7 $\pm$ 0.4
72	nd	13.2 $\pm$ 0.1	nd	13.3 $\pm$ 0.1	nd	11.3 $\pm$ 0.4	nd	12.1 $\pm$ 0.1	12.7 $\pm$ 0.0	31.2 $\pm$ 0.3
144	nd	13.2 $\pm$ 0.2	nd	13.3 $\pm$ 0.1	nd	11.3 $\pm$ 0.2	nd	12.1 $\pm$ 0.1	13.1 $\pm$ 0.4	30.8 $\pm$ 0.1