

| Antibodies                                             | Source      | Identifier |
|--------------------------------------------------------|-------------|------------|
| Anti-Acetyl-Histone H3(Lys9) Rabbit<br>mAb             | PTMPIO      | PTM-686-8  |
| Anti-Acetyl-Histone H3(Lys27) Rabbit<br>mAb            | PTMPIO      | PTM-122RW  |
| Anti -Histone H3 Rabbit mAb                            | PTMPIO      | PTM-166RW  |
| ERK 1/2 (phospho Tyr202/204)<br>Polyclonal Antibody    | Immunoway   | YP1197     |
| ERK 1/2 Polyclonal Antibody                            | Immunoway   | YT1625     |
| c-Fms Polyclonal Antibody                              | Immunoway   | YT0881     |
| c-Fms (phospho Tyr699) Polyclonal<br>Antibody          | Immunoway   | YP0504     |
| c-Fms (phospho Tyr561) Polyclonal<br>Antibody          | Immunoway   | YP0734     |
| PCNA Rabbit PolyAb                                     | Proteintech | 10205-2-AP |
| RSK2 Polyclonal Antibody                               | Proteintech | 23762-1-AP |
| RPS6KA1(Thy359/363) Polyclonal<br>Antibody             | Proteintech | 29225-1-AP |
| ATF2 Polyclonal Antibody                               | Proteintech | 11908-1-AP |
| Phospho-ATF2(Thr71)/ATF7(Thr53)<br>Polyclonal antibody | Proteintech | 28790-1-AP |

| Gene Name | Sequence (5'-3')                                       |
|-----------|--------------------------------------------------------|
| Ki-67     | F:CCCAGTCATGTTTCGTTCC<br>R: GCCTTCGGTTCTTCACAA         |
| PCNA      | F:GGAGAACTTGGAAATGGAAATA<br>R:TGTAGGAGACAGTGGAGTGGCT   |
| HDAC      | F:GCCAAAGGGGTCAAGGAAG<br>R:CTGAAGGGTTGTGGGATAAAGG      |
| HDAC6     | F:CCAGCGCATCCACTGTATCA<br>R:TCATAGTTGGCACCCCTCACG      |
| HDAC11    | F:GAAAATGGGGCAAAGTG<br>R:GAAGTTGGGCAGGAAGA             |
| HDAC2     | F:CTTCAACTGGTGGCTCA<br>R:CTTTAGTAACTCAAGGATGGC         |
| SIRT1     | F:ATCCTCTAGTTCTTGCGGCAGT<br>R:TTCGTCATTCTCACTTTCATCCTC |
| GAPDH     | F:CCTGGAAGTCTAAAGTATCACC<br>R:ACTCGTCGTCAATCCCATCTCG   |

### Detailed Analysis of Binding Interactions Between Sodium Butyrate and CSF1R

| Term                                                       | Value |
|------------------------------------------------------------|-------|
| Binding free energy                                        | -3.88 |
| Dissociation constant                                      | 10.84 |
| Non-bonded interaction energies                            | -6.84 |
| <i>van der Waals + Hydrogen bonds + Desolvation energy</i> | -6.64 |
| Electrostatic potential energy                             | -0.52 |
| Intramolecular energy                                      | -6.33 |
| Torsional free energy                                      | 2.96  |
| Unbonded system energy                                     | -6.33 |