| Gene   | Sequences                                                                 |
|--------|---------------------------------------------------------------------------|
| ERK1/2 | 5’-ATGGTGTGCTCTGCTTATGATA-3’ (Sense)                                      |
|        | 5’-TCTTTTCATTTGCTCGATGGTTG-3’ (Antisense)                                 |
| β2-AR  | 5’-CCATTGATGTGCTGTGCGTC-3’ (Sense)                                        |
|        | 5’-CCGGG CCTATTCTTGGCA-3’ (Antisense)                                     |
| CDH1   | 5’-GATAGAAGCAGCATGGCCAC-3’ (Sense)                                        |
|        | 5’-ATTTCCATGACAGACCCCCTAA-3’ (Antisense)                                 |
| CDH2   | 5’-TGTTTTCCTTACTGTTGCTGC-3’ (Sense)                                       |
|        | 5’-TTCTTTCCTGCGGAATGATCCT-3’ (Antisense)                                 |
| snail  | 5’-GCTCTGCCACCTGCTGGACTC-3’ (Sense)                                       |
|        | 5’-CCTCGCTGCAAATGCTCATCTG-3’ (Antisense)                                 |
| GAPDH  | 5’-GAAGGTCGGAGTCAACGG-3’ (Sense)                                          |
|        | 5’-CTGGAAGATGGTGATGGGATT-3’ (Antisense)                                  |
| Antibody     | Source                  | Catalog Number | Host | Dilution |
|--------------|-------------------------|----------------|------|----------|
| β2-AR        | abcam                   | ab182136       | mouse| 1:1000   |
| ERK1/2       | Huaan                   | #ET1601-29     | rabbit| 1:1000  |
| p-ERK1/2     | Huaan                   | #ET1603-22     | rabbit| 1:1000  |
| E-cadherin   | Huaan                   | #ET1607-75     | rabbit| 1:1000  |
| N-cadherin   | Huaan                   | #ET1607-37     | rabbit| 1:1000  |
| snail        | Huaan                   | #ER1706-22     | rabbit| 1:1000  |
| vimentin     | Huaan                   | #M0401         | mouse| 1:1000   |
| ZEB-1        | Cell Signaling Technology | #3396         | rabbit| 1:1000  |
| β-actin      | Cell Signaling Technology | #58169     | mouse| 1:10000 |
| GAPDH        | Abcam                   | ab8245         | mouse| 1:10000 |