**Supplemental table1**. RT-PCR primer list

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| --- | --- | --- |
| Gene | Primer sequence (5'-3') | |
| LAD1 | forward | ACCTACAGCAGCTCCCTCAA |
| reverse | ATGGCCGTGTGGTATCTCTC |
| ACTB | forward | GGACTTCGAGCAAGAGATGG |
| reverse | AGCACTGTGTTGGCGTACAG |
| CDH1 | forward | TGGAACAGGGACACTTCTGC |
| reverse | TGGGTTGGGTCGTTGTACTG |
| CDH2 | forward | CCTTTCAAACACACTCCACGG |
| reverse | TGTTTGGGTCGGTCTGCTATG |
| MMP1 | forward | CTGAAGGTGATGAAGCAGCC |
| reverse | AGTCCAAGAGAATGGCCGAG |
| MMP7 | forward | TGGGGAACTGCTGACATCAT |
| reverse | CCCTAGACTGCTACCATCCG |
| MMP9 | forward | GAGTTCCCGGAGTGAGTTGA |
| reverse | AAAGGTGAGAAGAGAGGGCC |
| MMP13 | forward | TTGAGCTGGACTCATTGTCG |
| reverse | GGAGCCTCTCAGTCATGGAG |
| MMP14 | forward | CAACACTGCCTACGAGAGGA |
| reverse | GTTCTACCTTCAGCTTCTGG |
| ITGA2 | forward | GGGCATTGAAAACACTCGAT |
| reverse | TCGGATCCCAAGATTTTCTG |
| ITGB1 | forward | CATCTGCGAGTGTGGTGTCT |
| reverse | GGGGTAATTTGTCCCGACTT |
| ITGA6 | forward | GGAGCCCCACAGTATTTTGA |
| reverse | TTCCATTTGCA GATCCATGA |
| ITGB4 | forward | CCCCCTTCTCCTTCAAGAAC |
| reverse | GCTGACTCGGTGGAGAAGAC |