**Supplementary Table 1. The sequence of primers used in RT-PCR**

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| --- | --- | --- | --- |
| Category | Gene | Primer (5′→3′) | Size (bp) |
| Forward | Reverse |
| Differentially expressed genes in fetus | *Meg3* | CAGAGCGCTTCTGAAGACCA | CACCTACTGGGTGCTCACTG | 158 |
| *Malat1* | GAGCTCGCCAGGTTTACAGT | AACTACCAGCAATTCCGCCA | 97 |
| *Snora44* | TGCCTGTAGCCATGGGATCT | GTGCTGACCTGAGCTGTCAA | 70 |
| *Snora81* | GCACTGTGCTAAAATTGCAGG | GAGGTCCACCCCAGTCTTTG | 117 |
| *Snhg11* | AAGAGCCCTGCCTTCTGTTC | CAGTGTACACGAGCACAGGT | 153 |
| *Miat* | ACACCAACCCACAAGACCTG | GACAGATCAGCCATGTCCGT | 184 |
| Differentially expressed genes in placenta | *Ccl2* | TAAAAACCTGGATCGGAACCAAA | GCATTAGCTTCAGATTTACGGGT | 120 |
| *Ccl7* | CCAATGCATCCACATGCTGC | CTCGACCCACTTCTGATGGG | 164 |
| *Cdh13* | CTGTGGGGGTCATTGTCAACT | GTTGGTCTGTGGGTTGGTGT | 134 |
| *Ctss* | TAGAGGCAGACGCTTCCTATC | CGGGAGCTGAATGTACCTTGA | 101 |
| *H2-Eb1* | GCGGAGAGTTGAGCCTACG | AGGCCCGTGGACACAATTC | 165 |
| *Inhba* | TCACCATCCGTCTATTTCAGCA | CTTCCGAGCATCAACTACTTTCT | 134 |
| *Lzy2* | GAACGTTGTGAGTTTGCCAGA | TGCTCTCGTGCTGAGCTAAA | 100 |
| *Msr1* | AAGTATCAGCAGAAGTCCAGTCT | TCCTTCAGTCTGAGGTCGTTG | 112 |
| *Ang2* | AAGGAAGCCCTTATGGACGA | CCAGCCATTCTCACAGCCAA | 152 |
| *Rnase2a* | TGGAGCAACTTGAGTCTCGAC | CGGGGATAGGCTCTGTTATAGA | 130 |
| Imprinted genes | *Ascl2* | AAGCACACCTTGACTGGTACG | AAGTGGACGTTTGCACCTTCA | 115 |
| *H19* | GAACAGAAGCATTCTAGGCTGG | TTCTAAGTGAATTACGGTGGGTG | 106 |
| *Ifg2* | GTGCTGCATCGCTGCTTAC | ACGTCCCTCTCGGACTTGG | 222 |
| *Snrpn* | TGCTACGTGGGGAGAACTTG | CCTGGGGAATAGGTACACCTG | 156 |
| *Peg10* | TGCTTGCACAGAGCTACAGTC | AGTTTGGGATAGGGGCTGCT | 162 |
| *Ifg2r* | TGAATGGTGATCCTTGCCCTC | CCGGTAGCTGTTGGTCTGTC | 185 |
| Repetitive DNA sequences | ERVB4 | GCCTCAGCAGAGAGTGTGTT | GCATGGCTCCCTGTGTAACT | 125 |
| RLTR12A | CCAATGGCTGGGCAGAATAGA | GCTCTTTGGGCTTCAGGTGT | 168 |
| RLTR16B | AAGGCTGTGGGGGTTTTGAA | GCAATGGCCGACCTGTTTTT | 132 |
| RLTR20B3 | CAGGACAGAGAGCATAGCCG | GGCCACTTCCTAACCTCCAC | 164 |
| RLTR20C2 | GTAGGACGCAGAGAGGAACG | GGGCACTCCTAAACCTTCCC | 169 |
| MTE2b | GCTGAGCACCAGCATTCATC | GCTCACAGTTCGAGGGTACA | 121 |
| Internal reference | *Gapdh* | GACAAAATGGTGAAGGTCGGT | GAGGTCAATGAAGGGGTCG | 120 |