**Table S1**: Primer sequences

|  |  |
| --- | --- |
| **Primers**  | **5' to 3'** |
| Rrm2\_F | CCGAGTCGGAAAGTAAAGCG |
| Rrm2\_R | ATGGGAAAGACAACGAAGCG |
| L1\_ORF2\_F | GGAGGGACATTTCATTCTCATCA |
| L1\_ORF2\_R | GCTGCTCTTGTATTTGGAGCATAGA |
| Chr17\_Tf\_L1\_F | GTTCTGTGACTCCTGAAAATGCA |
| Chr17\_Tf\_L1\_R | GAGTGCCTGAAACTGGGCTTA |
| eGFP\_F | TATATCATGGCCGACAAGCA |
| eGFP\_R | GAACTCCAGCAGGACCATGT |
| Hmga2\_F | CAGCCCAGAAGAAAGCAGAG |
| Hmga2\_R | TTGTGGCCATTTCCTAGGTC |
| L1\_Tf\_F | CAGCGGTCGCCATCTTG |
| L1\_Tf\_R | CACCCTCTCACCTGTTCAGACTAA |
| L1\_Gf\_F | CTCCTTGGCTCCGGGACT |
| L1\_Gf\_R | CAGGAAGGTGGCCGGTTGT |
| L1\_A\_F | GGATTCCACACGTGATCCTAA |
| L1\_A\_R | TCCTCTATGAGCAGACCTGGA |
| Btg2\_F | GCGAGCAGAGACTCAAGGTT |
| Btg2\_R | TAGCCAGAACCTTTGGATGG |
| Fgf5\_F | TGTACTGCAGAGTGGGCATC |
| Fgf5\_R | ACAATCCCCTGAGACACAGC |
| Sox2\_F | CACAGATGCAACCGATGCA |
| Sox2\_R | GGTGCCCTGCTGCGAGTA |
|  |  |
| **Small RNAs** | **5' to 3'** |
| U6 | Hs\_RNU6-2\_1 (Qiagen) |
| miR-295 | AAAGUGCUACUACUUUUGAGUCU |
| miR-302d | UAAGUGCUUCCAUGUUUGAGUGU |
| miR-16 | UAGCAGCACGUAAAUAUUGGCG |
| miR-21 | UAGCUUAUCAGACUGAUGUUGA |
| miR-320 | AAAAGCUGGGUUGAGAGGGCGA |
| L1\_5'-UTR+ | GCTGCTGTGGCTTAGGTCGCCTCCCC |
| L1\_5'-UTR- | CGGACCAAGATGGCGACCGCTGC |
|  |  |
| **Genotyping Primers** | **5' to 3'** |
| DICER 460 R  | GTACGTCTACAATTGTCTATG |
| DICER 23 F  | ATTGTTACCAGCGCTTAGAATTCC |
| DICER 458 F | TCGGAATAGGAACTTCGTTAAAC |
| CRE\_F | TTGCCCCTGTTTCACTAT |
| CRE\_R | ATGGATTTCCGTCTCTGG |
|  |  |
| **Strand-specific RT** | **5' to 3'** |
| RT1 | CACAGAGGCGCTGAGGCAT |
| RT2 | CGTCCAGGAGGAGGTCCAA |
| RT3 | TTGGACCTCCTCCTGGACG |
| RT4 | ATGCCTCAGCGCCTCTGTG |