**Supplementary Materials**

**Table S1.** **The sequence of shRNAs**

|  |  |
| --- | --- |
| sh-NC | TTCTCCGAACGTGTCACGT |
| sh1-METTL3 | CCGGGCTGACCCACCTTGGGATATTCTCGAGAATATCCCAAGGTGGGTCAGCTTTTT |
| sh2-METTL3 | CCGGGAAGGAACACTGCTTGGTTGGCTCGAGCCAACCAAGCAGTGTTCCTTCTTTTT |
| sh3-METTL3 | CCGGGGGTTATGAA |

**Table S2. The sequence of oeRNA**

|  |
| --- |
| oe-METTL3 |
| ATGTCGGACACGTGGAGCTCTATCCAGGCCCATAAGAAACAGCTGGACTCGCTTCGCGAGAGATTGCAGCGGCGACGGAAGCAGGACTCTGGGCACTTGGATTTAAGGAACCCAGAAGCGGCACTGTCCCCAACCTTCCGTAGTGATAGTCCCGTGCCTACTGCCCCTACCTCTAGCGGCCCTAAGCCCAGCACAACATCTGTGGCCCCTGAACTAGCTACAGACCCTGAGTTAGAGAAGAAGTTGCTACACCACCTCTCAGATCTGGCCTTGACCTTGCCCACTGATGCTGTTTCCATCCGTCTTGCCATCTCTACGCCAGATGCACCTGCCACTCAAGATGGGGTAGAAAGCCTTCTCCAGAAATTTGCCGCCCAGGAGTTGATTGAGGTAAAGCGAGGTCTCCTCCAAGATGATGCACATCCTACTCTTGTAACTTACGCTGACCACTCCAAGCTGTCTGCCATGATGGGGGCTGTGGCAGAAAAGAAAGGTCTTGGAGAGGTAGCAGGGACCATCGCAGGGCAGAAACGGCGTGCAGAACAGGATTTGACTACAGTGACCACCTTTGCCAGCTCTTTAGCATCTGGTCTGGCCTCTTCAGCATCAGAACCAGCTAAGGAGCCGGCTAAGAAGTCAAGGAAGCACGCTGCCTCCGATGTTGATCTGGAGATAGAAAGCCTTTTGAACCAACAGTCAACGAAAGAACAGCAGAGCAAGAAGGTCAGTCAGGAGATCCTAGAGCTATTAAATACCACAACAGCCAAGGAACAGTCCATTGTTGAAAAGTTTCGCTCTCGAGGTCGGGCCCAGGTGCAAGAATTTTGTGATTATGGGACCAAGGAAGAGTGCATGAAAGCCAGTGACGCTGACCGGCCTTGTCGCAAGCTGCACTTCAGACGAATTATCAATAAGCACACTGATGAATCTTTAGGTGACTGCTCTTTCCTTAACACATGTTTCCACATGGACACCTGCAAATATGTTCACTATGAAATTGATGCTTGTGTTGATTCTGAGAGTCCTGGCAGCAAGGAGCATATGCCAAGCCAGGAGCTTGCTCTTACACAGAGTGTTGGGGGTGACTCCAGTGCTGATCGACTCTTTCCACCTCAGTGGATCTGTTGTGATATCCGCTACCTGGACGTCAGTATCTTGGGCAAATTTGCAGTTGTGATGGCTGACCCACCTTGGGATATTCACATGGAGCTACCGTATGGGACATTAACAGATGATGAGATGCGCAGGCTCAATATACCAGTGCTACAGGATGACGGCTTTCTTTTCCTCTGGGTCACAGGAAGGGCCATGGAATTGGGCAGAGAATGTCTGAACCTCTGGGGTTATGAACGGGTGGATGAAATCATCTGGGTGAAGACTAATCAGCTGCAGCGCATCATTAGGACGGGCCGGACGGGTCACTGGTTAAACCACGGGAAGGAACACTGCTTGGTTGGTGTTAAGGGAAATCCTCAAGGATTCAACCAGGGCCTGGACTGCGATGTGATTGTAGCTGAGGTTCGTTCCACCAGTCATAAACCAGATGAAATATATGGCATGATTGAGAGACTGTCCCCTGGCACCCGCAAGATTGAGTTATTTGGACGACCACACAATGTGCAGCCCAACTGGATTACTCTTGGAAACCAACTGGATGGGATACACCTACTAGACCCAGATGTGGTTGCCAGGTTTAAGCAAAGGTATCCGGACGGCATCATCTCTAAACCTAAGAATTTA |

**Table S3. The sequence of siRNAs**

|  |  |
| --- | --- |
| si-NC | sense 5'- UUCUCCGAACGUGUCACGUTT -3' |
|  | antisense 5'- ACGUCACACGUUCGGAGAATT -3' |
| si1-YTHDF3 | sense 5'- GGCCCACUCUAUUUACUCUTT -3' |
|  | antisense 5'- AGAGUAAAUAGAGUGGGCCTT -3' |
| si2-YTHDF3 | sense 5'- GCCUCAGCCAUUAAUUCAATT -3' |
|  | antisense 5'- UUGAAUUAAUGGCUGAGGCTT -3' |
| si3-YTHDF3 | sense 5'- GGGCAAAUUUGAAGUUAAATT -3'  antisense 5'- UUUAACUUCAAAUUUGCCCTT -3' |

**Table S4. The sequence of siRNAs**

|  |  |
| --- | --- |
| si-NC | sense 5'-UUC UCC GAA CGU GUC ACG UTT -3' |
|  | antisense 5'-ACG UCA CAC GUU CGG AGA ATT -3' |
| si1-SOX4 | sense 5'- GGCCCACUCUAUUUACUCUTT -3' |
|  | antisense 5'- AGAGUAAAUAGAGUGGGCCTT -3' |
| si2-SOX4 | sense 5'- GCCUCAGCCAUUAAUUCAATT -3' |
|  | antisense 5'- UUGAAUUAAUGGCUGAGGCTT -3' |
| si3- SOX4 | sense 5'- GGGCAAAUUUGAAGUUAAATT -3'  antisense 5'- UUUAACUUCAAAUUUGCCCTT -3' |

**Table S5. The sequence of primers**

|  |  |
| --- | --- |
| Gene | Forward and reverse primer |
| METTL3 | F:5' CGCTGCCTCCGATGTTGATCTG 3' |
|  | R:5' TCTCCTGACTGACCTTCTTGCTCTG 3' |
| YTHDF3 | F:5' GCTTATGCTGGTGTCTGGTCTC 3' |
|  | R:5' GTCCCTTGAATTGGTTACIGGTTTG 3' |
| SOX4 | F:5' ATGAACGCCTTTATGGTGTGGTC 3' |
|  | R:5' ATGAACGGAATCTTGTCGCTGTC 3' |
| GAPDH | F:5' TGTGTCCGTCGTGGATCTGA 3'  R:5' TTGCTGTTGAAGTCGCAGGAG 3' |