**Supplement Table1: Primers sequence**

|  |  |  |  |
| --- | --- | --- | --- |
| GENE | Forward primer sequence（5'→3'） | Reverse primer sequence（5'→3'） | miRNA stem-loop primer |
| MALAT1 | ACCACCACAGGTTTACAG | AACTACCAGCCATTTCTC |  |
| ZNF148 | TAAGCGTAAAGCAGGAAA | ACGTGAGATTTAGGGGTT |  |
| site1 | CCAGCGCCTCACAAAGGGA | GTCCTTTACAGAAGTCTCGGGC |  |
| site2 | CTCCACGAAAGAAAGACCAGC | CTAACGCCTGTGCCTGTTCTG |  |
| miR-106a-5p | ACACTCCAGCTGGGAAAAGTGCTTACAGTGC | TGGTGTCGTGGAGTCG | CTCAACTGGTGTCGTGGAGTCGGCAATTCAGTTGAGCTACCTGC |
| GAPDH | ATCCCATCACCATCTTCC | ATGACCCTTTTGGCTCCC |  |
| U6 | CTCGCTTCGGCAGCACA | AACGCTTCACGAATTTGCGT |  |

**Supplement Table2: siRNA sequences**

|  |  |
| --- | --- |
| GENE | **SenseSeq5'→3'** |
| si-MALAT1#1 | GAGCAAAGGAAGUGGCUUATT |
| si-MALAT1#2 | AGGUAAAGCUUGAGAAGAUTT |
| si-MALAT1#3 | GAGAAAUAGUAGAUGGCAATT |
| si-NC | UUCUCCGAACGUGUCACGUTT |

**Supplement Figure.1**



Supplement Figure.1 MALAT1 expression of HaCaT transfected with siRNA-NC, MALAT1 siRNA#1, MALAT1 siRNA#2 or MALAT1 siRNA#3 for 48 hours.

**Supplement Figure 2**



Supplement Figure 2 Pri-miR-106a-5p and pre-miR-106a-5p levels in HaCaT, determined by qRT-PCR.

**Supplement Figure 3**



Supplement Figure 3 Migration ability of HaCaT, assessed by scratch assays. LG, cells treated with 5.6 mmol/l D-(+)-Glucose; HG, cells treated with 35 mmol/l D-(+)-Glucose; oe-MALAT1, overexpression MALAT1.

**Supplement Figure 4**



Supplement Figure 4 Gene set enrichment analysis (GSEA) performed on the GSE132953 to compare gene expression profiles of MDA-MB-231 breast cancer cells transfected with sh-NC or sh-ZNF148.

GO, Gene Ontology; BP, biological processes; ES, enrichment score; NES, normalized enrichment score; FDR, false discovery rate.