**Supplementary file 2. The sequence of oligonucleotide.**

|  |  |  |
| --- | --- | --- |
|  | **Forward primer (5’-3’)** | **Reverse primer (5’-3’)** |
| **CRISPR/Cas9 sgRNA** |  |  |
| SOX4: sgRNA | CACCCGAGAACACGGAAGCGCTGC | AAACGCAGCGCTTCCGTGTTCTCG |
| **siRNA sequence** |  |  |
| siRNA sequence-SOX4 | CGACAAGATCCCTTTCATT | / |
| siRNA sequence-FOXO1 | TTCGGAATGACCTCATGGA | / |
| siRNA sequence-HERC4 | CCUUUGGGCAGCUAGGUUU | / |
| siRNA sequence-PGR | CCAGCATGTCGCCTTAGAA | / |
| **ChIP-qPCR primer** |  |  |
| SOX4 | AGGCTGGTCTCGAACTCCT | TCAAATGCCAGACACACTCC |
| FOXO1  | CCGACCTCCCATAACAGAGAA | GCCCTACACGTCATTCTTCTAG |
| PRL  | GGTTTCTGATACACTGGCCC | ATGGAAGTCCCGACCAGAC |
| FOSL2  | TGGCAACGTGCGCCAAT | CTGCCCGAGATGAGTCACTA |
| STAT3 | CGCAGAGGTGTTATGTTGCG | TAGGTGACCAAGTAGCCGGA |
| **Luciferase reporter**  |  |  |
| SOX4 promoter-vector | AGGCTGGTCTCGAACTCCT | CTAATTCAAATGCCAGACAC |
| **QPCR primer** |  |  |
| GAPDH | ACGGATTTGGTCGTATTGGG | CGCTCCTGGAAGATGGTGAT |
| IGFBP1 | AGAGTCGTAGAGAGTTTAGC | ACACTGTCTGCTGTGATAA |
| PRL | CTACATCCATAACCTCTCCTCAG | GGGCTTGCTCCTTGTCTTC |
| FOXO1 | GGCAGCCAGGCATCTCAT | TGGGTCAGGCGGTTCATAC |
| PGR | TGTATTTGTGCGTGTGGGTG | TACAGCCCATTCCCAGGAAG |
| HERC4 | AAACCAGAGCAGGTTGTTGC | CAGAATCGAGACCCCAAGCA |
| RIF213 | GGCATGTCTTTCTCCCGCAA | CAATGCCTGTGACCCTGGAT |
| UBR3 | ACCACAGGTTTCCGAGGCAG | CGGCTGCACAGGTATCCCAA |
| SOX4 | CCCAGCAAGAAGGCGAGTTA | CATCGGCCAAATTCGTCACC |