**Table S5. Primer Sequences for qRT-PCR**

| Gene name | Primer name | Primer sequence | Bases |
| --- | --- | --- | --- |
| MYCN | MYCN- Forward | CACGTCCGCTCAAGAGTGTC | 20 |
| MYCN- Reverse | GTTTCTGCGACGCTCACTGT | 20 |
| PARP1 | PARP1- Forward | CGGAGTCTTCGGATAAGCTCT | 21 |
| PARP1- Reverse | TTTCCATCAAACATGGGCGAC | 21 |
| PARP2 | PARP2- Forward | TGCCCAGAGGAACTTCAGTG | 20 |
| PARP2- Reverse | TTGGTGGCATAGTCCATCTGT | 21 |
| BRCA1 | BRCA1- Forward | GAAACCGTGCCAAAAGACTTC | 21 |
| BRCA1- Reverse | CCAAGGTTAGAGAGTTGGACAC | 22 |
| RMI2 | RMI2- Forward | TTCTGCTTCGGACACCACTC | 20 |
| RMI2- Reverse | ACCATGTCTCGCCGAAAGTT | 20 |
| TOPBP1 | TOPBP1- Forward | TTGCGACCAGAAAGGGTTGT | 20 |
| TOPBP1- Reverse | TGATTTGGCAAGTCCAGATCCT | 22 |
| POLE | POLE- Forward | TTCAGCAACTCACAGTTAAGCA | 22 |
| POLE- Reverse | GGCACACTCATACTTCTGACC | 21 |
| NSE | NSE- Forward | AGCCTCTACGGGCATCTATGA | 21 |
| NSE- Reverse | TTCTCAGTCCCATCCAACTCC | 21 |
| SYP | SYP- Forward | CTCGGCTTTGTGAAGGTGCT | 20 |
| SYP- Reverse | CTGAGGTCACTCTCGGTCTTG | 21 |
| ChgA | ChgA- Forward | TAAAGGGGATACCGAGGTGATG | 22 |
| ChgA- Reverse | TCGGAGTGTCTCAAAACATTCC | 22 |

**Table S6. siRNA Sequence**

|  |  |
| --- | --- |
| siRNA name | Target sequence |
| Hs\_MYCN\_3 | ATGACGCTGATACATAACTAA |
| Hs\_MYCN\_6 | CGTGCCGGAGTTGGTAAAGAA |
| Hs\_PARP1\_5 | CCGAGAAATCTCTTACCTCAA |
| Hs\_PARP1\_6 | ACGGTGATCGGTAGCAACAAA |
| Hs\_PARP2\_1 | CGGCAGGGCGAGAGCATTAAA |
| Hs\_PARP2\_2 | GACCAACACTATAGAAACCTA |
| Hs\_BRCA1\_15 | ACCATACAGCTTCATAAATAA |
| Hs\_RMI2\_2 | CTCAGAGATGTTGAGCAGTTT |

**Table S7. Primer Sequences for ChIP-PCR. P1= PARP1; P2= PARP2; B1= BRCA1; R2= RMI2; T1= TOPBP1; BS= binding site.**

|  |  |  |  |
| --- | --- | --- | --- |
| Gene name | Primer name | Primer sequence | Bases |
| PARP1 | P1BS1-Forward | ACCACAGCCTCAACCTTCAG | 20 |
| P1BS1-Reverse | TGAGCCCAGGAGTTCAAGAC | 20 |
| P1BS2-Forward | ACAACAAGATCTAGGCCAGGT | 21 |
| P1BS2-Reverse | GTGTGTGTGTGTGTGTGTGT | 20 |
| P1BS3-Forward | AAGTCGAGGTGGGAGGATTG | 20 |
| P1BS3-Reverse | TCGAAATTGTGGTAATGACTGCA | 23 |
| P1BS4-Forward | AGAACAATCAAAGGGGTGGCG | 21 |
| P1BS4-Reverse | GCCGTTCCCTGATAGATTGC | 20 |
| PARP2 | P2BS1-Forward | GAATTTTCGTGGGCTTCCTGC | 21 |
| P2BS1-Reverse | GTGGAATGTGAAAAGCTCCGT | 21 |
| P2BS2-Forward | TCAGGGAGAGCCCTGTTAGG | 20 |
| P2BS2-Reverse | CGGAGGGAAGCTCATCAGTG | 20 |
| BRCA1 | B1BS1-Forward | GTCCCCTGTTTCTCCGAGTG | 20 |
| B1BS1-Reverse | GTTGTTCGGGTTCAGGTTGC | 20 |
| B1BS2-Forward | AAGAGTGGGGTAATGGGACCT | 21 |
| B1BS2-Reverse | CTCTCGCCTCTACGCTTCCA | 20 |
| RMI2 | R2BS1-Forward | CTGGCAGTCACCGCTGTTATTA | 22 |
| R2BS1-Reverse | GGATTTGAATCAGCACAGCCA | 21 |
| R2BS2-Forward | GGAGAGGGCTCGCTATTGTG | 20 |
| R2BS2-Reverse | CTTCTGGCCTTCACGTGGTT | 20 |
| R2BS3-Forward | CAGCGGTTGGTGGGGAGAG | 19 |
| R2BS3-Reverse | ACAAATGAAGTCGGGTCGGC | 20 |
| TOPBP1 | T1BS1-Forward | GAATTTTCGTGGGCTTCCTGC | 21 |
| T1BS1-Reverse | GTGGAATGTGAAAAGCTCCGT | 21 |