

Table S1. The gRNAs and related primer sequences

| Primers | Sequence (5'→3') |
|-------------------------------------|---|
| T7- <i>cdc27</i> (Exon-1)-sfd | <u>TAATACGACTCACTATA</u> GGAGCCTGGCTACGGAAT GA GTTTTAGAGCTAGAAATAGC |
| T7- <i>cdc27</i> (Exon-7)-sfd | <u>TAATACGACTCACTATA</u> gACTGTGACCATAACTCT GC GTTTTAGAGCTAGAAATAGC |
| T7- <i>cdc27</i> (Exon-13)-sfd | <u>TAATACGACTCACTATA</u> gTCGATAGCTCTCTATACG T GTTTTAGAGCTAGAAATAGC |
| T7- <i>cdc27</i> (Exon-18)-sfd | <u>TAATACGACTCACTATA</u> GGATAGTCATCAGGAGTG AC GTTTTAGAGCTAGAAATAGC |
| T7- <i>cdkn1a</i> (Exon-2-1)-sfd | <u>TAATACGACTCACTATA</u> GCCCATTACCGAGTGAAC GT GTTTTAGAGCTAGAAATAGC |
| T7- <i>cdkn1a</i> (Exon-2-2)-sfd | <u>TAATACGACTCACTATA</u> GGGCGGAGACTTCCACT GGGAGTTT TAGAGCTAGAAATAGC |
| T7- <i>cdkn1a</i> (Exon-2-3)-sfd | <u>TAATACGACTCACTATA</u> GGGGGTTTCTCCACTTC ATG GTTTTAGAGCTAGAAATAGC |
| T7- <i>cdkn1a</i> (Exon-3)-sfd | <u>TAATACGACTCACTATA</u> gGCTACTGGCCGGATTT GCG GTTTTAGAGCTAGAAATAGC |
| T7- <i>tp53</i> (Exon-2)-sfd | <u>TAATACGACTCACTATA</u> GGCTCGAACCACGGAGC CCTG GTTTTAGAGCTAGAAATAGC |
| tracr rev | AAAAAAAGCACCGACTCGGTGCCAC |
| <i>cdc27</i> (Exon-1)-Forward | CTATTTGAATCGGTTGTGTTTCG |
| <i>cdc27</i> (Exon-1)-Reverse | GTCTTCTACCGTAACTGCGACC |
| <i>cdc27</i> (Exon-7)- Forward | GGTGTAGTTTTGGAATTTTGCC |
| <i>cdc27</i> (Exon-7)- Reverse | ATAACCGCAGATTCTGTCTTGG |
| <i>cdc27</i> (Exon-13)- Forward | GGTGAAATCAATTACCAAAGGC |
| <i>cdc27</i> (Exon-13)- Reverse | TTTTGTCCATGTCAGTGAGGTC |
| <i>cdc27</i> (Exon-18)- Forward | CTCCTGAATCAAATGTTCGTCA |
| <i>cdc27</i> (Exon-18)- Reverse | CAACAAACAGCATTACACCGAG |
| <i>cdkn1a</i> (Exon-2-1,2)- Forward | ACCCCTAAAACTGTCATCGCTA |
| <i>cdkn1a</i> (Exon-2-1,2)- Reverse | ACCTGTGATGTTGGTCTGTTTG |
| <i>cdkn1a</i> (Exon-2-3)- Forward | TTGCGTCTGAGAAACCACTAGA |
| <i>cdkn1a</i> (Exon-2-3)- Reverse | TGAAGGTAGATGCAGGTCAAGA |
| <i>cdkn1a</i> (Exon-3)- Forward | ACAGACCAACATCACAGGTCAG |
| <i>cdkn1a</i> (Exon-3)- Reverse | AGGAATGGATCTTTCCAGAACA |
| <i>tp53</i> (Exon-2)- Forward | GGCCATTGTCATTTTTCGTATT |
| <i>tp53</i> (Exon-2)- Reverse | AATTACACACACTTGCCTCCCT |

Note: The black underline indicates the T7 promoter sequence; The blue sequence indicates the main sequence of the target (excluding PAM); The red sequence indicates the fixed sequence of gRNA scaffold; The “g” refers to the adjustment for the first base of the main sequence is not “g”.