**Supplementary file 1.** Target sequences of shRNA used in this study

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| Target sites | Sequence（5 ’to 3’） |
| V1 | 5'-AA GCCACCTACTACTTCTCTGTTCAAGAGAGAAACAGCGCTTTGTCCTCTTTTTTTTACGCGT-3' |
| V2 | 5'-AA CTACGGTGGTGAGACACAATTCAAGAGAGAAACAGCGCTTTGTCCTCTTTTTTTTACGCGT-3' |
| V3 | 5'-AACAGCTTACCACAAGGAACCTTCAAGAGACTGCATCAGGTCCAACACATTTTTTTTACGCGT-3' |
| V4 | 5'-AA GAGAACTACGGTGGTGAGATTCAAGAGAGAAACAGCGCTTTGTCCTCTTTTTTTTACGCGT-3' |
| V5 | 5'-AA CCTTACACGGCTCCACACCTTCAAGAGAGAAACAGCGCTTTGTCCTCTTTTTTTTACGCGT-3' |
| V6 | 5'-AA CGGCCACCTACTACTTCTCTTCAAGAGAGAAACAGCGCTTTGTCCTCTTTTTTTTACGCGT-3' |
| V7 | 5'-AAGAGGACAAAGCGCTGTTTCTTCAAGAGAGAAACAGCGCTTTGTCCTCTTTTTTTTACGCGT-3' |
| V8 | 5'-AA AACTACGGTGGTGAGACACTTCAAGAGAGAAACAGCGCTTTGTCCTCTTTTTTTTACGCGT-3' |
| V9 | 5'-AA TACACGGCTCCACACCGTGTTCAAGAGAGAAACAGCGCTTTGTCCTCTTTTTTTTACGCGT-3' |
| V10 | 5'-AA ACGGTGGTGAGACACAAGTTTCAAGAGAGAAACAGCGCTTTGTCCTCTTTTTTTTACGCGT-3' |
| Scrambled control | 5'-ACGTAGCTAGCGTACGTACATTCAAGAGACACTTCCTCGAACATGATGTTTTTTTTACGCGT-3 |