

**Supplementary Table S1 Location and primer sequence information of promoter region, S1–S6 and S1(D).**

Sequence name	Start site in the transcript	end site in the transcript	chr9 start	chr9 end	Sequence information	Primer information
Promotor region	+50	-2000	33447560	33449609	CTGGGCAACATAGCAAGACCTCATTTTACAACAGATTAAAATTAGCTGAGTGTATGGTGGCACATAGT CCCTATAGTCCTCATTCTGGAGCTGAGGTGGGAGGATCACTTGGGCCAGGAGTCAGTGAGCTGTATTGCACCACAGCTGGTGATGGAGCAAGACCTA CTCTTTAAAAGAGAGAGGGCAAGGTTGCCCCATGATCCCCTCAGATAGGGCTGACTCCCCATAATTAAAGTTGCTTAAAGAGGGAGA CTTGCTGGGCTCAGTGGCTCACGCCCTGAATCCGACTTGGGAGGCTGAGGAGCTGGTGACCTGACCGCTGAAATCAGCCTGG TCAACATGGTAATCCCCTACCTTCAAAAAAACAAAATTAGCTGGCATGGTGACCTGACCGCTGAAATCAGCCTGGAGCTGGAGA AGAATCACTTGAACCTGGAGGTGGAGGGCAGAGTCACCCATTGCACCTCACCCTAGGGCAGAGAGAGACTCGCT TAAAAAAAAGAGAGACAGACTCTCTGGCTGGGGTAAGTCAGATGGAGAGGGTAAAAAACAGCTGGACTCAGCCTGCTGGCAAAC ATGTGGCATGGCATGTCGGGCACTGCAGTCAGGCCCTGGAGCCATGTGAGCACTGCACGGTACACGTGTGACAAGCTAGTCACCTAG CCATGTTCAACAGGCATGTGCACGCCAGAGGAATGCCAGCCAGCTACAAATTAGGCACACAGGACATCCGCCATGTGAGCACAGCTGTGGAC ATAGCTGGCCAGACATGCACACAGCAGCTGACAGGAGAAGGGCCATGAGTCTGGTAACCTCAGCTG TGCTGTGTGCCACCTGAGTGTGCTGCCACTGACACTAGCTGCCCTCTGACACTAGCTGCCCTGAAGGGTGGCTTATCTGCTCTGACAGAAGAGACA GTGTGCTCTCACTTGGGCTCGCAGCCTCTCTCGCTCGACTGAGGATCTGGTGGCTCAGTCATCTGGAGAGATGCGGCC AGTTCTCTGACAGGTCTCTCTGCCCCAAGGAAGTGGGTGATCACAGGGCGAGGTGGTCTATGACAGTCATCTCTCAGCCATGG CCCTGAACCCCTGCCTATAATCCCACCATGCTCTCAGATGCCCTAAGGCTCCCTTGACGCCCCCTCCCTTAAGGCCCTCC GAAGGCCACCCGCTCCCAAGCTCCACACTCCATGCCGAGCTCCCTCCACCGCGTCCGCACAGCCTCCAGCGAGGT GGGGGGGGGCGAGGGGGCGCGACTCTCGCGCTCGGGACTGAGGGCGGGCTGAGGGCGCTGCGCCACCGCCTCCACCCCTG CTCTATAAAGGGAGGCCACAGCGCTGGAGGCCGTGCTCGTGCACCGCCTCCACCCCTG	
S1	+22	-245	33447588	33447854	CTCGCGCCGAGGTCGCGACCACCGAGGGAAATATCTCGCAGCTCTGTGCCCG GGG CGGGCGGAGCGTCGGGGCGGGACGTAGGGCCTCGGGCTCTCACCGCGG GGGAGGGGGGGGGGGTGGAGGCCACCTCGCAGGCTCGGGCACCTCC TCGACGCCCGTACCTCACACTCTCGAAACTCCCTGCCACCGGAAGCTCCCGGA ATTCCCTCCCTGAGTCCCCGACTCTCGAATCGCTAGA	Forward primer TCCATGCCCGAGCTCCCTCCA Reverse primer CTCCAGCGCTGGGGCTCCCTTA
S2	-442	-615	33448054	33448226	CGCTCGGGGTTCACTTCTGTTGACAGAGAACAGCTCTGTCTATTCCGTGGCT GGGAAAGTCCCCCTGTCGATCACAGTCTCCCGTCGTCAGGCTGAGTCACCCGTGT GTCTGTGTGACGACTCAAGGTTGGTCTGAAGTACCCGGAAAGAGGGACACGATACTCG	Forward primer CCAGGACATGCGACACACGA Reverse primer AGCCCCAAGTGAGAAGCAAC
S3	-1211	-1416	33448382	33448503	ACGACGTAAACGAGTGTACCGAGGTCTCGACTCGACGTCACGGGCTGTACGGT TACGGTGTACAAACGGCTCGCGACTCAGGGTCGACAAAAATTGGAGAGGGAGAGG TAGACTGA	Forward primer AGACTCTCCTGGCTGG Reverse primer ACCTCGTGCATTGCTCAC
S4	-1214	-1439	33448825	33449050	CAGACGGAGAAATTCTGTTGAATTAAACCCCTCAGTCGGGATAGACTCCCCCTAGTAC CCTTTGGAACGGGAGAGAGAGAAAAATTCTCATCCAGAACGAGGTAGTGGTCCGA CACACGTTAGTGTGAGTCAGATCGAGCTCGAGCTTGAGGACCCGGTTACTAGGAGGGT GGAGTCGGAGGTCTTACCTACCCGTATACCGGTGGTACTG	Forward primer GTCATGGTGGCACATAGTC Reverse primer GTCTGCCTCTTAAGCAAAC
S5	-1426	-1599	33449037	33449210	ACACGGTGGTACTGTAGTCGATTTAAATTAGACAACATTTCCTCGAACAGAT ACAACGGGTCAATCAGAGTTGAGGACCGAAATTGCTAGGAGGGTGGAGCCGGAGG GCTTCACGTTGAAACGGGAGATACGACGAAATTATTGTCCTTGTAGACCGACCG	Forward primer GCCACCAAGATTTCTTG Reverse primer TGTGCCACCATGACACTCA
S6	-1569	-1690	33449208	33449301	CCGGACCCCTCGTTGTTGACGGGAATCGACTCGAAGATACCGTCGTAACGGTCT CCTCTAGTTCTTAGTAAAGGTCTCCCTGAATTAGG	Forward primer TCCTCAGGGTCATTAGCCCA Reverse primer CTGGGAGCAAACACATGCC
S1 (D)	'CTGCAGGGCGGGGGGC CCGTCTCCAGCGCTCC TATAAAGGGAGCCA' was deleted in S1				CTCGCGCCGAGGTCGCGACCAGGGGGGGACGTCAAGGGCTCGCGCTCCACGCC CGGGGGAGGGGGGGGGTGGAGGCCACCTCCGACCCAGCCTGCCACCTCC TCGACGCCCGTACCTCACACTCTCGAAACTCCCTGCCACCGGAAGCCTCCCGGAATTCCCT CCCCTGAGTCCCCGACTCTCGAATCGCTAGA	supply by Gene Pharma company, Shanghai, China