

Appendix 1-table 13. Sequences of primers used in study.

Oligos	Sequences
Primers used to generate variant CDKN2A expression plasmids	
p.Ser7Gly_FWD	CGCCCGTGGCGGCTCAATGGAAC
p.Ser7Gly_REV	GGTTCATTAGTCTGGTATG
p.Glu26Cys_FWD	AGGACGAGTGTGGAAATCCGAGCGCTCTTGAAGCCGG
p.Glu26Cys_REV	CGCCGGCTGCGGTATAG
p.Glu26Pro_FWD	AGGACGAGTGTGGAAATCCGAGCGCTCTTGAAGCCGG
p.Glu26Pro_REV	CGCCGGCTGCGGTATAG
p.Glu27Ala_FWD	ACGAGTGGAAAGCCGTCGAGCGCTCTTGAAGCCGG
p.Glu27Ala_REV	CCTCGGGCGCTGCGGTA
p.Glu27Thr_FWD	ACGAGTGGAAAGCCGTCGAGCGCTCTTGAAGCCGG
p.Glu27Thr_REV	CCTCGGGCGCTGCGGTA
p.Glu27His_FWD	ACGAGTGGAAAGCCGTCGAGCGCTCTTGAAGCCGG
p.Glu27His_REV	CCTCGGGCGCTGCGGTA
p.Glu27Pro_FWD	ACGAGTGGAAAGCCGTCGAGCGCTCTTGAAGCCGG
p.Glu27Pro_REV	CCTCGGGCGCTGCGGTA
p.Glu27Ile_FWD	ACGAGTGGAAAGCCGTCGAGCGCTCTTGAAGCCGG
p.Glu27Ile_REV	CCTCGGGCGCTGCGGTA
p.Glu69Ala_FWD	GCATGGAGCAGCCCTAATTGTG
p.Glu69Ala_REV	AAGAGGAGAAGTTCACTAC
p.Val95His_FWD	CGATACCCCTCAGCTTCACTCGAG
p.Val95His_REV	AGAAACCCCTCAGCCGG
p.Ala100Gly_FWD	CGCCTCGATGTGCGGGACGCGATG
p.Ala100Gly_REV	GCACCCGCTCGATGAAAGACGAC
p.Arg103Lys_FWD	AGTGTGGTCCAAAGCTCGATGTCC
p.Arg103Lys_REV	CGATGAAAGGACGACAAGG
p.Arg103Leu_FWD	AGCTGTGGCTGCTGCGATGTCC
p.Arg103Leu_REV	CGATGAAAGGACGACAAGG
p.Arg103Gln_FWD	AGCTGTGGCTGCTGCGATGTCC
p.Arg103Gln_REV	CGATGAAAGGACGACAAGG
p.Ala109Asp_FWD	TGTCGGGACGATGGGACGGCTC
p.Ala109Asp_REV	TCGAGGCGGGACCAAGCT
p.Trp110Pro_FWD	CCGGGACGCCACCGGAGGCTCCCG
p.Trp110Pro_REV	ACAATGAGGGCGGCCA
p.Val115Cys_FWD	ACGGCTCCCATGCGATCTCGAGAAGAAC
p.Val115Cys_REV	CCCCATGCTCCCGGACA
p.Gly136Cys_FWD	AGCCCGGGTTGCACGAGGGGAT
p.Gly136Cys_REV	GCACGCAATATCTGGCTACG
p.Pro151Gly_FWD	TGCGAGGGCGGACGACATAC
p.Pro151Gly_REV	GGTCTGATCTAGCGGTGA
p.Ile154Gly_FWD	CCCAAGCAGCGCCAGACTAAGAAATTCGACCC
p.Ile154Gly_REV	CCCTGGCAGCGTGGAT
p.L32P_FWD	CGAGCGCTCCCAAGCCGGTG
p.L32P_REV	ACTTCTTCCACTGCTCTCG
p.G101W_FWD	TCATCGAGCTGGCCCGCTCG
p.G101W_REV	AGGACGACAAGGGTATCGGAGAAC
p.V120P_FWD	GCACAGGGGACGACCGCAGATATTGG
p.V120P_REV	CCAAGTCTCTCGGAGATC
p.L32L_FWD	CGAGCGCTCTGGAAGCCGGTG
p.L32L_REV	ACTTCTTCCACTGCTCTCGGC
p.G101G_FWD	TCATCGAGCTGGCCCGCTCG
p.G101G_REV	AGGACGACAAGGGTATCGGAGAAC
p.V120V_FWD	GCACAGGGGACGTCGCGCAGATATT
p.V120V_REV	CCAAGTCTCTCGGAGATC
Primers used to generate CdfTag plasmids	
Barcode 1_FWD	CTGCGGACGCGGCCACCAAC
Barcode 1_REV	TACCACCTATCGTCACTGCTTTGTAATCCATGGTGGC
Barcode 2_FWD	CGATAAGGATCATAGCGGACGGGGC
Barcode 2_REV	TCATCTGCTTTGTAATCC
Barcode 3_FWD	GAATGGCAGCGGCCACCAAC
Barcode 3_REV	TGAATCTATCGTCACTGCTTTGTAATCCATGGTGGC
Barcode 4_FWD	GTACGGCAGCGGCCACCAAC
Barcode 4_REV	TGCTCTTATCGTCACTGCTTTGTAATCCATGGTGGC
Barcode 5_FWD	GTACGGCAGCGGCCACCAAC
Barcode 5_REV	ATATCTTATCGTCACTGCTTTGTAATCCATGGTGGC
Barcode 6_FWD	GTTCGGCAGCGGCCACCAAC
Barcode 6_REV	TCAACCTTATCGTCACTGCTTTGTAATCCATGGTGGC
Barcode 7_FWD	ACATGGCAGCGGCCACCAAC
Barcode 7_REV	TGATCTTATCGTCACTGCTTTGTAATCCATGGTGGC
Barcode 8_FWD	AGCTGGCAGCGGCCACCAAC
Barcode 8_REV	TGCACCTTATCGTCACTGCTTTGTAATCCATGGTGGC
Barcode 9_FWD	GAGGATAAGGATGTAACGGGACGGG
Barcode 9_REV	ATCGCTTTGTAATCCATGGTGG
Barcode 10_FWD	GGTGGCAGCGGCCACCAAC
Barcode 10_REV	CCTGGCTTATCGTCACTGCTTTGTAATCCATGGTGGC
Barcode 11_FWD	ACGATAAGATCAGATCGGACGGCG
Barcode 11_REV	CATCGTCTTGTAAATCCATG
Barcode 12_FWD	CGATAAGGTGAGGAGCGGACGGGCG
Barcode 12_REV	TCATCTGCTTTGTAATCCATGG
Barcode 13_FWD	TATAGCAGCGGCCACCAAC
Barcode 13_REV	CAACCCCTTATCGTCACTGCTTTGTAATCCATGGTGGC
Barcode 14_FWD	GATAAAGTTCGATGCGGACGGG
Barcode 14_REV	GTACCTGCTTTGTAATCC
Barcode 15_FWD	GTACGGCAGCGGCCACCAAC
Barcode 15_REV	AGAACCTTATCGTCACTGCTTTGTAATCCATGGTGGC
Barcode 16_FWD	AGCCCGCAGCGGCCACCAAC
Barcode 16_REV	ACCCCTTATCGTCACTGCTTTGTAATCCATGGTGGC
Barcode 17_FWD	TGATGGCAGCGGCCACCAAC
Barcode 17_REV	AGCTACTTATCGTCACTGCTTTGTAATCCATGGTGGC
Barcode 18_FWD	CTCAGGACGCGGCCACCAAC
Barcode 18_REV	CACTGCTTATCGTCACTGCTTTGTAATCCATGGTGGC
Barcode 19_FWD	CTGTGGCAGCGGCCACCAAC
Barcode 19_REV	TCTGCTTATCGTCACTGCTTTGTAATCCATGGTGGC
Barcode 20_FWD	CAATGGCAGCGGCCACCAAC
Barcode 20_REV	TATCCCTTATCGTCACTGCTTTGTAATCCATGGTGGC
1st stage primers used to generate sequence libraries	
CellTag_FWD	GTA AAAACGACGGCAGGTTGCTGACGCGGGATCCG
CellTag_REV	CAGGAAACAGCTATGACTGTAGCCGTTGCTTTTCAA
p.AA1-53_FWD	GTA AAAACGACGGCAGGCTAGCGGTACAGTCC
p.AA1-53_REV	CAGGAAACAGCTATGACTACCTACCTTCAGATCC
p.AA54-110_FWD	GTA AAAACGACGGCAGCGCCCAATACAAGTTATG
p.AA54-110_REV	CAGGAAACAGCTATGACCCCAAGTTCTTCGCGAGA
p.AA111-156_FWD	GTA AAAACGACGGCAGGATACCCCTTGTCTCTTC
p.AA111-156_REV	CAGGAAACAGCTATGACTGCCATTTGTCTCGAGGT
2nd stage primers used to generate sequence libraries	
FWD1	AATGATACGGGACCCAGGATCTACACTTTCCCTACACGACGCTCTTCCGATCTATGTA AAAACGACGGCCAG
FWD2	AATGATACGGGACCCAGGATCTACACTTTCCCTACACGACGCTCTTCCGATCTATGTA AAAACGACGGCCAG
FWD3	AATGATACGGGACCCAGGATCTACACTTTCCCTACACGACGCTCTTCCGATCTATGTA AAAACGACGGCCAG
FWD4	AATGATACGGGACCCAGGATCTACACTTTCCCTACACGACGCTCTTCCGATCTATGTA AAAACGACGGCCAG
FWD5	AATGATACGGGACCCAGGATCTACACTTTCCCTACACGACGCTCTTCCGATCTATGTA AAAACGACGGCCAG
FWD6	AATGATACGGGACCCAGGATCTACACTTTCCCTACACGACGCTCTTCCGATCTATGTA AAAACGACGGCCAG
FWD7	AATGATACGGGACCCAGGATCTACACTTTCCCTACACGACGCTCTTCCGATCTATGTA AAAACGACGGCCAG
FWD8	AATGATACGGGACCCAGGATCTACACTTTCCCTACACGACGCTCTTCCGATCTATGTA AAAACGACGGCCAG
REV1	CAAGCAGAAGACGGCATAACGAGATGACTGGATTGACTGGAGTTACAGACGTGTGCTCTCCGATCTATCAGGAAACAGCTATGAC
REV2	CAAGCAGAAGACGGCATAACGAGATGACTGGATTGACTGGAGTTACAGACGTGTGCTCTCCGATCTATCAGGAAACAGCTATGAC
REV3	CAAGCAGAAGACGGCATAACGAGATGACTGGATTGACTGGAGTTACAGACGTGTGCTCTCCGATCTATCAGGAAACAGCTATGAC
REV4	CAAGCAGAAGACGGCATAACGAGATGACTGGATTGACTGGAGTTACAGACGTGTGCTCTCCGATCTATCAGGAAACAGCTATGAC
REV5	CAAGCAGAAGACGGCATAACGAGATGACTGGATTGACTGGAGTTACAGACGTGTGCTCTCCGATCTATCAGGAAACAGCTATGAC
REV6	CAAGCAGAAGACGGCATAACGAGATGACTGGATTGACTGGAGTTACAGACGTGTGCTCTCCGATCTATCAGGAAACAGCTATGAC
REV7	CAAGCAGAAGACGGCATAACGAGATGACTGGATTGACTGGAGTTACAGACGTGTGCTCTCCGATCTATCAGGAAACAGCTATGAC
REV8	CAAGCAGAAGACGGCATAACGAGATGACTGGATTGACTGGAGTTACAGACGTGTGCTCTCCGATCTATCAGGAAACAGCTATGAC
REV9	CAAGCAGAAGACGGCATAACGAGATGACTGGATTGACTGGAGTTACAGACGTGTGCTCTCCGATCTATCAGGAAACAGCTATGAC
REV10	CAAGCAGAAGACGGCATAACGAGATGACTGGATTGACTGGAGTTACAGACGTGTGCTCTCCGATCTATCAGGAAACAGCTATGAC
REV11	CAAGCAGAAGACGGCATAACGAGATGACTGGATTGACTGGAGTTACAGACGTGTGCTCTCCGATCTATCAGGAAACAGCTATGAC
REV12	CAAGCAGAAGACGGCATAACGAGATGACTGGATTGACTGGAGTTACAGACGTGTGCTCTCCGATCTATCAGGAAACAGCTATGAC
REV13	CAAGCAGAAGACGGCATAACGAGATGACTGGATTGACTGGAGTTACAGACGTGTGCTCTCCGATCTATCAGGAAACAGCTATGAC
REV14	CAAGCAGAAGACGGCATAACGAGATGACTGGATTGACTGGAGTTACAGACGTGTGCTCTCCGATCTATCAGGAAACAGCTATGAC
REV15	CAAGCAGAAGACGGCATAACGAGATGACTGGATTGACTGGAGTTACAGACGTGTGCTCTCCGATCTATCAGGAAACAGCTATGAC
REV16	CAAGCAGAAGACGGCATAACGAGATGACTGGATTGACTGGAGTTACAGACGTGTGCTCTCCGATCTATCAGGAAACAGCTATGAC

FWD - forward primer; REV - reverse primer.