

Supplementary File 1 Plasmid DNA sequences of dCas9-TET1, dCas9-TET1-IN and pgRNA cloned with each gRNA.

dCas9-TET1 plasmid

SL-48 Forward primer for mutations (H1672Y, D1674A):

5' ATGGTGTGGGATGGC 3'

GAAYTCGACGGCWTAMCAGAGCTCACAGAGAATCTAAAGTCATACAATGGG
CACCTACCGACAGAAGATGCACCCTCAATGAAAATCGTACCTGTACATGTC
AAGGAATTGATCCAGAGACTTGTGGAGCTTCATTCTCTTTTGGCTGTTTCATG
GAGTATGTACTTTAATGGCTGTAAGTTTGGTAGAAGCCCAAGCCCCAGAAG
ATTTAGAATTGATCCAAGCTCTCCCTTACATGAAAAAACCTTGAAGATAACT
TACAGAGTTTGGCTACACGATTAGCTCCAATTTATAAGCAGTATGCTCCAGTA
GCTTACCAAATCAGGTGGAATATGAAAATGTTGCCCGAGAATGTCGGCTT
GGCAGCAAGGAAGGTGACCCCTTCTCTGGGGTCACTGCTTGCCTGGACTT
CTGTGCTCATCCC **CACAGGGA** CATTCAACATGAATAATGGAAGCACTGT
GGTTTGTACCTTAACCTCGAGAAGATAACCGCTCTTTGGGTGTTATTCCTCAA
GATGAGCAGCTCCATGTGCTACCTCTTTATAAGCTTTCAGACACAGATGAGT
TTGGCTCCAAGGAAGGAATGGAAGCCAAGATCAAATCTGGGGCCATCGAG
GTCCTGGCACCCCGCCGCAAAAAAAGAACGTGTTTCACTCAGCCTGTTCC
CCGTTCTGGAAAGAAGAGGGCTGCGATGATGACAGAGGTTCTTGCACATAA
GATAAGGGCAGTGGAAGAAACCTATTCCCCGAATCAAGCGGAAGAATAA
CTCAACAACAACAACAGTAAGCCTTCGTCACTGCCAACCTTAGGGAG
TAACACTGAGACCGTGCAACCTGAAGTAAAAAGTGAAACCGAACCCCATTT
TATCTTAAAAGTTTCAACAACTAAACTTATTTCGCTGATGCCATCCGCTCC
TCACCCAGTGAAAGAGGCATCTCCAGGCTTCTCCTGTCCCGAGACTGCTT
CAGCCACACCAGCTCACTGAGATGACGCACAGCTCATGCGGGTTTCAGAA
RAGCAGCACTCCCCACTGTACGATGCTTCGGGAAGACTCATGTGCCAATGC
TGCAGCTGCTGATGGCCTGCATTTTCMAGCTTGGCGAATGGCTCCYCTCCC
ACCCTGTGCGCTCCTGKGAKGGAGCCCTTCATTATTCTGGAACCCTCTCCC
ACTGGTGTGTGTTACTGGAGCGCTAAGCYTMTTCAGCCAAAMCWCAGCCCT
TTCTCMACTTYAGAACCTTGCGTCTCTCCAGAGGAGTTGCCCCCTCTCCTG
T

dCas9-TET1-IN plasmid

SL-48 Forward primer for mutations (H1672Y, D1674A):

5' ATGGTGTGGGATGGC 3'

ATAGTACGACGGCTTAMCAGAGCTCACAGAGAATCTAAAGTCATACAATGG
GCACCCTACCGACAGAAGATGCACCCTCAATGAAAATCGTACCTGTACATG
TCAAGGAATTGATCCAGAGACTTGTGGAGCTTCATTCTCTTTTGGCTGTTCA
TGGAGTATGTACTTTAATGGCTGTAAGTTTGGTAGAAGCCCAAGCCCCAGAA
GATTTAGAATTGATCCAAGCTCTCCCTTACATGAAAAAACCTTGAAGATAAC
TTACAGAGTTTGGCTACACGATTAGCTCCAATTTATAAGCAGTATGCTCCAGT
AGCTTACCAAATCAGGTGGAATATGAAAATGTTGCCCGAGAATGTCGGCTT
GGCAGCAAGGAAGGTGACCCCTTCTCTGGGGTCACTGCTTGCCTGGACTT
CTGTGCTCATCCC **TACAGGGC** CATTACACAACATGAATAATGGAAGCACTGT
GGTTTGTACCTTAACCTCGAGAAGATAACCGCTCTTTGGGTGTTATTCCTCAA
GATGAGCAGCTCCATGTGCTACCTCTTTATAAGCTTTCAGACACAGATGAGT
TTGGCTCCAAGGAAGGAATGGAAGCCAAGATCAAATCTGGGGCCATCGAG
GTCCTGGCACCCCGCCGCAAAAAAAGAACGTGTTTCACTCAGCCTGTTCC
CCGTTCTGGAAAGAAGAGGGCTGCGATGATGACAGAGGTTCTTGACATAA
GATAAGGGCAGTGGAAGAAAGAAACCTATTCCCCGAATCAAGCGGAAGAATAA
CTCAACAACAACAACAACAGTAAGCCTTCGTCACTGCCAACCTTAGGGAG
TAACACTGAGACCGTGCAACCTGAAGTAAAAGTGAAACCGAACCCCATTTT
ATCTTAAAAGTTCAGACACACTAAACTTATTCGCTGATGCCATCCGCTCCT
CACCCAGTGAAGAGGCATCTCCAGGCTTCTCCTGGTCCCGAGACTGCTTC
AGCCACACAGCTCACTGAGATGACGCACAGCTCATGCGGTTTCAGATGAG
CAGCACTCCCCTGTACGATGCTTCGGAGACTCATGGTGCATGCTGCAGCT
GCTGATGCCTGCATTACAGCTGCGATGCTCTCTCCCCACCTGTCTGCTCT
GKGATGGAGCCCTCATATTCTGAGCCTCMTGGGTGACTGATCGCTAASGCC
CTWCAGCTAGCACAGGCTCTTCTGACCTCYCTAGAGTCCTKGCCCCCTCTCT
CCCAGGGAGA

pgRNA-guide 1 plasmid

SL-51_forward primer: 5'-GAAACTCACCTAACTG-3'

GRAKKGGGKTTTTGARACWTAAGTATCCCTTGGAGAACCACCTTGTTGGCC
AGGACCGCGCTTCCCACG GTTTTAGAGCTAGAAATAGCAAGTTAAAATAAG
GCTAGTCCGTTATCAACTTGAAAAAGTGGCACCGAGTCGGTGCTTTTTTTCT
CGAGTACTAGGATCCATTAGGCGGCCGCGTGGATAACCGTATTACCGCCAT
GCATTAGTTATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATATA
TGGAGTTCGCGTTACATAACTTACGGTAAATGGCCCGCCTGGCTGACCGC
CCAACGACCCCCGCCCATTGACGTCAATAATGACGTATGTTCCCATAGTAAC
GCCAATAGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAAACT
GCCCCATTGGCAGTACATCAAGTGTATCATATGCCAAGTACGCCCCCTATTG
ACGTCAATGACGGTAAATGGCCCGCCTGGCATTATGCCCAGTACATGACCT
TATGGGACTTTTCTACTTGGCAGTACATCTACGTATTAGTCATCGCTATTACC
ATGGTGATGCGGTTTTTGGCAGTACATCAATGGGCGTGGATAGCYGTTTGAC
TCACGGGGATTTCCAAGTCTCCACCCCATTGACGTCAATGGGAGTTTGTTT
TGGCACCAAATCAACGGGACTTTCCAAAATGTCGTAACAACCTCCGCCCCA
TTGACGCAAAATGGGCGGTAGGCGTGACGGTGGGAGGTCTATATAAGCAG
AGCTGGTTTTAGTGAACCGTCAGATCCGCTAGCCCACCATGAYCSAGTACA
AGCCCACGGTGCGCCTCGCCACCCGCGACGACSTCCCCCGGGCCGTACK
CACCTCGCCGCCGCGTTTCRCGACTACCCCGCCSGCGCCWCACGTCGAM
CCKGACCGKWCWTGARSSGGKTTTCMCCGAGYTGCAARAKTTCTTCCTCA
CGSGCGTCGGWSTYGAMAWMSGCARGTGTGGGKWMCCWRAMACGGCT
RCSYCCGWGGCMAYMTGGRAYA

pgRNA-guide 2 plasmid

SL-51_forward primer: 5'-GAAACTCACCTAACTG-3'

GGGKKKGKKT TTGAGMWTAGTATCCCTTGGAGAACCACCTTGTTGGTCTGT
GCCCCGGAATCCACT GTTTTAGAGCTAGAAATAGCAAGTTAAAATAAGGCTA
GTCCGTTATCAACTTGAAAAAGTGGCACCGAGTCGGTGCTTTTTTTCTCGA
GTACTAGGATCCATTAGGCGGCCGCGTGGATAACCGTATTACCGCCATGCA
TTAGTTATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATATATGG
AGTTCCGCGTTACATAACTTACGGTAAATGGCCCGCCTGGCTGACCGCCCA
ACGACCCCCGCCCATTGACGTCAATAATGACGTATGTTCCCATAGTAACGCC
AATAGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAAACTGCC
CACTTGGCAGTACATCAAGTGTATCATATGCCAAGTACGCCCCCTATTGACG
TCAATGACGGTAAATGGCCCGCCTGGCATTATGCCCAGTACATGACCTTATG
GGACTTTTCTACTTGGCAGTACATCTACGTATTAGTCATCGCTATTACCATGG
TGATGCGGTTTTTGGCAGTACATCAATGGGCGTGGATAGCGGTTTGACTCAC
GGGGATTTCCAAGTCTCCACCCCATTGACGTCAATGGGAGTTTGTTTTGGC
ACCAAATCAACGGGACTTTCCAAAATGTCGTAACAACCTCCGCCCCATTGA

CGCAAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCT
GGTTTAGTGAACCGTCAGATCCGCTAGCCCACCATGACCGAGTACAAGCCC
ACGGTGCGCCTCGCCACCCGCGACGACGTCCCCGGGCGGTACGCACCC
TCGCCGCCGCGTTTCGCCGACTACCCCGCCACGCGCCACACCGTCGACCC
GGACCGYCACATCGAGCGGGTCACCGAGCTGCAAGAACTCTTCCTCACGC
GCGTCGGGCTCGAMATCGGCAAGGTGTGGGTYSCGGACGACGGYGCCGC
GGTGCCGGTCTGGAACCACSCCGGGAGASSTCCTARCTGGGGCGGTGTTT
CRCYCASAATCGCCTRYCATGATCAATTACCGTWTCCCKGCTGGCRCRCACA
CMGATGTAAGGCYTCTGTWCKCTSWCGRCTCAGTAGCYCGCATGTATCTG
YCACRKRKWMCGGCTCTKGCCRAMCAACMM

pgRNA-guide 3 plasmid

SL-51_forward primer: 5'-GAAACTCACCTAACTG-3'

GWTTGGTTTGAGMWTAGTATCCCTTGGAGAACCACCTTGTTGGGCTGCTC
CGGGCGGACCCGGGTTTTAGAGCTAGAAATAGCAAGTTAAAATAAGGCTAG
TCCGTTATCAACTTGAAAAAGTGGCACCGAGTCGGTGCTTTTTTCTCGAG
TACTAGGATCCATTAGGCGGCCGCGTGGATAACCGTATTACCGCCATGCATT
AGTTATTAATAGTAATCAATTACGGGGTTCATTAGTTCATAGCCCATATATGGAG
TTCCGCGTTACATAACTTACGGTAAATGGCCCGCCTGGCTGACCGCCCAAC
GACCCCCGCCCATTGACGTCAATAATGACGTATGTTCCCATAGTAACGCCAA
TAGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAAACTGCCCA
CTTGGCAGTACATCAAGTGTATCATATGCCAAGTACGCCCCCTATTGACGTC
AATGACGGTAAATGGCCCGCCTGGCATTATGCCCAGTACATGACCTTATGG
GACTTTCTACTTGGCAGTACATCTACGTATTAGTCATCGCTATTACCATGGT
GATGCGGTTTTTGGCAGTACATCAATGGGCGTGGATAGCGGTTTGACTCAG
GGGATTTCCAAGTCTCCACCCCATTGACGTCAATGGGAGTTTGTTTTGGCA
CCAAAATCAACGGGACTTTCCAAAATGTCGTAACAACTCCGCCCCATTGAC
GCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTGG
TTTAGTGAACCGTCAGATCCGCTAGCCCACCATGACCGAGTACAAGCCCAC
GGTGCGCCTCGCCACCCGCGACGACGTCCCCGGGCGGTACGCACCCCTC
GCCGCCGCGTTTCGCCGACTACCCCGCCACGCGCCACACCGTCGACCCGG
ACCGCCACATCGAGCGGGTCACCGAGCTGCAAGAACTCTTCCTCACGCGC
GTCGGGCTCGACATCGGCAAGGKGTGGGTGCGCGGACGACGSGCCGCGGT
GGCGGTCTGGACCACGCCGGAAGCGTCGAAGCGGGGGGCGGTGTTTCGC
CGAGATCGCCCGCGCATGCCGAGTTGACGGTTCCGGCTGGCCSSCARCA
CAGATGAAGGCCTCTGGCGCCSCACGACAGGACCCGCGTGTTCTGGCC
ACGTCGGSTCYSGCGACMACAGGCAAGTCTGGCAGTCGTCTGGCTTCCG
AATGGAGCGTTCGACSGCCGAGTGTCYCGCACATTCCTGTGA

pgRNA-guide 4 plasmid

SL-51_forward primer: 5'-GAAACTCACCTAACTG-3'

AAGGGKCTTGAGMWTAGTATCCCTTGGAGAACCACCTTGTTGGGCTCGCG
CTCCCAGGGTGCAAGTTTTAGAGCTAGAAATAGCAAGTTAAAATAAGGCTAGT
CCGTTATCAACTTGAAAAAGTGGCACCGAGTCGGTGCTTTTTTTCTCGAGT
ACTAGGATCCATTAGGCGGCCGCGTGGATAACCGTATTACCGCCATGCATTA
GTTATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATATATGGAGT
TCCGCGTTACATAACTTACGGTAAATGGCCCGCCTGGCTGACCGCCCAACG
ACCCCGCCCATTTGACGTCAATAATGACGTATGTTCCCATAGTAACGCCAAT
AGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAAACTGCCCA
CTTGGCAGTACATCAAGTGTATCATATGCCAAGTACGCCCCCTATTGACGTC
AATGACGGTAAATGGCCCGCCTGGCATTATGCCCAGTACATGACCTTATGG
GACTTTCCTACTTGGCAGTACATCTACGTATTAGTCATCGCTATTACCATGGT
GATGCGGTTTTGGCAGTACATCAATGGGCGTGGATAGCGGTTTGACTCACG
GGGATTTCCAAGTCTCCACCCCATTTGACGTCAATGGGAGTTTGTTTTGGCA
CCAAAATCAACGGGACTTTCCAAAATGTCGTAACAACTCCGCCCCATTGAC
GCAAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTG
GTTTAGTGAACCGTCAGATCCGCTAGCCCACCATGACCGAGTACAAGCCCA
CGGTGCGCCTCGCCACCCGCGACGACGTCCCCCGGGCCGTACGCACCCT
CGCCGCCGCGTTTCGCCGACTACCCCGCCACGCGCCACACCGTCGACCCG
GACCGCCACATCGAGCGGGTCACCGAGCTGCAAGAACTCTTCCTCACGCG
CGTCGGGCTCGACATCGGCAAGGKGTGGGTGCGCGACGACGGCGCCGC
GGTGGCGGTCTGGACCACGCCGGAGAGCGTCGAAGCGGGGGGCGGTGT
TCSCCGAGATCGACCGCGCATGACCGAGTGACGGTCCCGGCTGGCCGCG
CAGCAAMMGATGAAGCCTCTGGCGCCSCACGACAAGGGCCGCGKGATCT
GTCACGTGCGSTCTSCCGACCACAGGCAAGCGGCAGCGTCKGTTCCCGAAT
GAGCGCCGAACGCYCAGAGTCCCKCCCTTTCC

pgRNA-guide 5 plasmid

SL-51_forward primer: 5'-GAAACTCACCTAACTG-3'

GAGKTGGATTTGAGMTATAGTATCCCTTGGAGAACCACCTTGTTGGTCGAAT
CGGCCTAGGCTGTGTTTTAGAGCTAGAAATAGCAAGTTAAAATAAGGCTAG
TCCGTTATCAACTTGAAAAAGTGGCACCGAGTCGGTGCTTTTTTTCTCGAG
TACTAGGATCCATTAGGCGGCCGCGTGGATAACCGTATTACCGCCATGCATT
AGTTATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATATATGGAG
TTCCGCGTTACATAACTTACGGTAAATGGCCCGCCTGGCTGACCGCCCAAC
GACCCCGCCCATTTGACGTCAATAATGACGTATGTTCCCATAGTAACGCCAA
TAGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAAACTGCCCA
CTTGGCAGTACATCAAGTGTATCATATGCCAAGTACGCCCCCTATTGACGTC

AATGACGGTAAATGGCCCGCCTGGCATTATGCCCAGTACATGACCTTATGG
GACTTTCCTACTTGGCAGTACATCTACGTATTAGTCATCGCTATTACCATGGT
GATGCGGTTTTTGGCAGTACATCAATGGGCGTGGATAGCGGTTTGACTCACG
GGGATTTCCAAGTCTCCACCCCATTGACGTCAATGGGAGTTTGTGTTTGGCA
CCAAAATCAACGGGACTTTCCAAAATGTCGTAACAACCTCCGCCCCATTGAC
GCAAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTG
GTTTAGTGAACCGTCAGATCCGCTAGCCCACCATGACCGAGTACAAGCCCA
CGGTGCGCCTCGCCACCCGCGACGACGTCCCCCGGGCCGTACGCACCCT
CGCCGCCGCGTTTCGCCGACTACCCCGCCACGCGCCACACCGTCGACCCG
GACCGCCACATCGAGCGGGTACCCGAGCTGCARRACTCTTCTCACGCGC
GTCGGGCTCGACATCGGCAAGGKGKGGGTGCGSACGACGGCGCCSCGGT
GGCGGTCTGGACCACGCCGGAAGCGTCGACCGGGGGGGCGGKGTTCCSCC
GAAATCGGCCSSCATGCCGGTGACGGTTCCCGGCTGGCCGCGCAGCAMR
RATGGAAGGCYYCTGGSGCKCSMCGTCAAGACCGSGKGATCTGGCCACGT
CGCTYCGCCGACACAGGSAAGGCAGCAGCGYTGATCCTGATGAGCTCAAS
SCCGGGGTCGCATTCTA

pgRNA-guide 6 plasmid

SL-51_forward primer: 5'-GAAACTCACCTAACTG-3'

TAKGGGGTTTTGAGACWTAGTATCCCTTGGAGAACCACCTTGTTGGAGGGA
GGGGCCATGATGTGGGTTTTAGAGCTAGAAATAGCAAGTTAAATAAGGCTA
GTCCGTTATCAACTTGAAAAAGTGGCACCGAGTCGGTGCTTTTTTTCTCGA
GTACTAGGATCCATTAGGCGGCCGCGTGGATAACCGTATTACCGCCATGCA
TTAGTTATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATATATGG
AGTTCCGCGTTACATAACTTACGGTAAATGGCCCGCCTGGCTGACCGCCCA
ACGACCCCCGCCCATTGACGTCAATAATGACGTATGTTCCCATAGTAACGCC
AATAGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAAACTGCC
CACTTGGCAGTACATCAAGTGTATCATATGCCAAGTACGCCCCCTATTGACG
TCAATGACGGTAAATGGCCCGCCTGGCATTATGCCCAGTACATGACCTTATG
GGACTTTCCTACTTGGCAGTACATCTACGTATTAGTCATCGCTATTACCATGG
TGATGCGGTTTTTGGCAGTACATCAATGGGCGTGGATAGCGGTTTGACTCAC
GGGGATTTCCAAGTCTCCACCCCATTGACGTCAATGGGAGTTTGTGTTTGGC
ACCAAATCAACGGGACTTTCCAAAATGTCGTAACAACCTCCGCCCCATTGA
CGCAAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCT
GGTTTAGTGAACCGTCAGATCCGCTAGCCCACCATGACCGAGTACAAGCCC
ACGGTGCGCCTCGCCACCCGCGACGACGTCCCCCGGGCCGTACGCACCC
TCGCCGCCGCGTTTCGCCGACTACCCCGCCACGCGCCACACCGTCGACCC
GGACCGCCACATCGAGCGGGTACCCGAGCTGCAAGAACTCTTCCTCACGC
GCGTCGGGCTCGACATCGGCAAGGTGTGGGGTCGCGGACGACGGCGCC
GCGGTGGCGGTCTGGACCACGCCGGAAGAGCGTCGAAGCGGGGGGGCGGT
GTTCCGCCGAGATCGGCCGCGCATGCCGAGTGAGCGGTTCCTGGCTGGCC

GCGCAGCACAGATGGAGCCTCCTGGCGCCGCACCGACAAGGAGCCGSKC
TCCTGGCACGTCGGCGTCTCGCCGAMCAGGCAAGGTCTGGCAGGTCTG
TCGGCTCCCCGGATGAGCGKCCGACGMSCCCGGGAGTCCCGCT

pgRNA-guide 7 plasmid

SL-51_forward primer: 5'-GAAACTCACCTAACTG-3'

AAKKTGGCTTGAGMWTAAAGTATCCCTTGGAGAACCACCTTGTTGGGCCCT
GGGAACAGGTGCGTGTTTTAGAGCTAGAAATAGCAAGTTAAAATAAGGCT
AGTCCGTTATCAACTTGAAAAAGTGGCACCGAGTCGGTGCTTTTTTCTCG
AGTACTAGGATCCATTAGGCGGCCGCGTGGATAACCGTATTACCGCCATGC
ATTAGTTATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATATATG
GAGTTCGCGTTACATAACTTACGGTAAATGGCCCGCCTGGCTGACCGCCC
AACGACCCCCGCCATTGACGTCAATAATGACGTATGTTCCCATAGTAACGC
CAATAGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAACTGC
CCACTTGGCAGTACATCAAGTGTATCATATGCCAAGTACGCCCCCTATTGAC
GTCAATGACGGTAAATGGCCCGCCTGGCATTATGCCCAGTACATGACCTTAT
GGGACTTTCCTACTTGGCAGTACATCTACGTATTAGTCATCGCTATTACCATG
GTGATGCGGTTTTTGGCAGTACATCAATGGGCGTGGATAGCGGTTTGACTCA
CGGGGATTTCCAAGTCTCCACCCCATTTGACGTCAATGGGAGTTTGTTTTGG
CACCAAATCAACGGGACTTTCCAAAATGTCGTAACAACTCCGCCCCATTG
ACGCAAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGC
TGGTTTAGTGAACCGTCAGATCCGCTAGCCCACCATGACCGAGTACAAGCC
CACGGTGCGCCTCGCCACCCGCGACGACGTCCCCCGGGCCGTACGCACC
CTCGCCGCCGCGTTTCGCCGACTACCCCGCCACGCGCCACACCGTCGACC
CGGACCGCCACATCGAGCGGGTCACCGAGCTGCAAGAACTCTTCCTCAGC
CGCGTCGGGCTCGACATCGGCAAGGKGTGGGTGCGGGACGACGGCSCSC
GGTGGCGGTCTGGACCACSCCGGAGAGCGTCGAACGGGGGGCGGTGTTCS
CCGAGATCGCCCGCSCATGACGAGTGAGCGGTTCCCGGCTGCCSGCAGC
AMGATGGAGCCTCCTGGCGCCGCACGACAGGAGCCCGSGKGATCTGTCTCM
MCGTCGSTYCGCCGACMCAGGCAGGCTGGCAGCSTCTGTCTCCCGAAKG
AGGCGCCCGCSGCCCGGGGGTGCCCGCCTACG

pgRNA-guide 8 plasmid

SL-51_forward primer: 5'-GAAACTCACCTAACTG-3'

TGGGGGGCTTGAGACTATAGTATCCCTTGGAGAACCACCTTGTTGGGGTC
TCCGGATCAGGCCAGTTTTAGAGCTAGAAATAGCAAGTTAAAATAAGGCTA
GTCCGTTATCAACTTGAAAAAGTGGCACCGAGTCGGTGCTTTTTTCTCGA
GTACTAGGATCCATTAGGCGGCCGCGTGGATAACCGTATTACCGCCATGCA
TTAGTTATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATATATGG

AGTTCCGCGTTACATAACTTACGGTAAATGGCCCGCCTGGCTGACCGCCCA
ACGACCCCCGCCCCATTGACGTCAATAATGACGTATGTTCCCATAGTAACGCC
AATAGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAAACTGCC
CACTTGGCAGTACATCAAGTGTATCATATGCCAAGTACGCCCCCTATTGACG
TCAATGACGGTAAATGGCCCGCCTGGCATTATGCCCAGTACATGACCTTATG
GGACTTTCCTACTTGGCAGTACATCTACGTATTAGTCATCGCTATTACCATGG
TGATGCGGTTTTTGGCAGTACATCAATGGGCGTGGATAGCGGTTTTGACTCAC
GGGGATTTCCAAGTCTCCACCCCATTTGACGTCAATGGGAGTTTGTGTTTTGGC
ACCAAATCAACGGGACTTTCCAATAATGTCGTAACAACCTCCGCCCCATTGA
CGCAAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCT
GGTTTAGTGAACCGTCAAGATCCGCTAGCCCACCATGACCGAGTACAAGCCC
ACGGTGCGCCTCGCCACCCGCGACGACGTCCCCCGGGCCGTACGCACCC
TCGCCGCCGCGTTTCGCCGACTACCCCGCCACGCGCCACACCGTTCGACCC
GGACCGCCACATCGAGCGGGTCACCGAGCTGCAAGAACTCTTCCTCACGC
GCGTCGGGCTCGACATCGGCAAGKGGTGGGTTCGCGACGACGGCSCSCGG
TGGCGGTCTGGACCACSCCGGAAGCGTCAAGCGGGGGGGCGGTGTTTSC
CGAGATCGGCCSCSCATGGCCGAGTTGAGCGGTTCCGGCTGGCCGCGCA
GCAACAGATGGAGCCTCTGGCGCCSCACGACAGGAGCCGCGKGTCTGG
CCACGTCCGGSTCYGCCGACMMCAGGCAGTCTGGCAGCGTCTGTCTCCCG
GAAGTGARGSGCCGAASSCCCGGGGGGTCCSCCCTYTYCTTGA