

Supplementary Materials:
CRISPR/Cas9 DNA-editing

DNA sequence of the template for tagging ADNP with GFP (small script denotes changes made in the sgRNA sequence to avoid template degradation):

AAGTGCACGAATGTTACAGGGtttttgtttttttttttAAAGGATCCCAGAA
AGACAGGATTCACTGTATGTTCTGATGCCACAAACATGCTTTTTCCC
ATCTATGTGTTTATTCTGTGGCCTATGTGAGGCCTTTGCCCTGATGTG
TTTCCACCCAGGGAGCCAGTCCCACCACCATTTGGGACTTTGGTTTG
AGGAGGAGACCGAAACAGTCACTGAATGACATGTGGCTTCTGTGAG
TGTCATGGCCTTGATCAGGACATTTTCAAGATGGCAGAATCCTCCCCTC
AGCACTGAAAGCTGAGTGATGCTGTGAAGCTCGGAGTGGCTCCAGC
TTCGTAGGTCCAGCTTCATCGAGAGGAGACATGCGCACTCGATTTGG
CTTTGAGATAGCTGGGTGATATTGTTGCCCTCATTTTCCAACCTCAGG
TTCATCTCTGAACAGATTTTTACAGCTTGCTGAGACTTGTGTGCCTCG
ACTTGTGGTCTAAAATATCCTTTTTTGAAATAGGGAAGGAAGGAAG
GCTAACAAGCACTCACCTATTTGCCTGCTACTCTTAAGTGTTCCATAC
TAGGCGAGGAATTCTCAACTGAtaGAGCtAtaGTTTGGGATCCTATCAT
CAGTcaAATTAGTAACTTTTACAAGTTGTACATGTTTTGACTTTGACTT
AAAttttttttCCAATAGAACTATGGTGAGCAAGGGCGAGGAGCTGTT
CACCGGGGTGGTGCCCATCCTGGTCGAGCTGGACGGCGACGTAAAC
GGCCACAAGTTCAGCGTGTCCGGCGAGGGCGAGGGCGATGCCACCT
ACGGCAAGCTGACCCTGAAGTTCATCTGCACCACCGGCAAGCTGCC
CGTGCCCTGGCCCAACCCTCGTGACCACCCTGACCTACGGCGTGCACT
GCTTCAGCCGCTACCCCGACCACATGAAGCAGCACGACTTCTTCAA
GTCCGCCATGCCCCGAAGGCTACGTCCAGGAGCGCACCATCTTCTTCA
AGGACGACGGCAACTACAAGACCCGCGCCGAGGTGAAGTTCGAGG
GCGACACCCTGGTGAACCGCATCGAGCTGAAGGGCATCGACTTCAA
GGAGGACGGCAACATCCTGGGGCACAAGCTGGAGTACAACCTACAA
CAGCCACAACGTCTATATCATGGCCGACAAGCAGAAGAACGGCATC
AAGGTGAACCTCAAGATCCGCCACAACATCGAGGACGGCAGCGTGC
AGCTCGCCGACCACTACCAGCAGAACACCCCCATCGGCGACGGCCC
CGTGCTGCTGCCCCGACAACCACTACCTGAGCACCCAGTCCGCCCTG
AGCAAAGACCCCCAACGAGAAGCGCGATCACATGGTCTCTGCTGGAGT
TCGTGACCGCCGCGGGATCACTCTCGGCATGGACGAGCTGTACAA
GATGTTCCAACCTTCTGTCAACAATCTTGGCAGTTTAAGAAAAGCCC
GGAAAACGTGTGAAAAAAATACTTAGTGACATTGGGTTaGAATACTGT
AAAGAACATATAGAAGTAAGTAGCATGCCATTTTTAAATTTTAATGT
GACTCAGCTCCTGATCCATTACTGTGTCCATGGGCAAAGATGGTTCA
CTAATAGGTGTGGTAGTAAATTTTAACTAGACCTTCAGCTTCACCAA
AACCTTCTCACGTAGGATAGCTTACTTCATTTTCCCTGAAAGCCTGTT
CATCTTGGTAACTGAGGCAAACTAATTACAGCACAGAGAATGTA
CACAAGTCAGACAGTGCACATGGTGCTTTAAACTGTCTATGAGCTT
TCTCCTTGAAATAACCTTTAGGGGCTCTAGGAATTCTTGTCTCCAGTC

TATGAAAGAAGAATTGGGAAAGCAGAGATGCCAGGCTCTCAGCTA
GGGAAGGGGCAGTGAGGACTGTAGGGCCTGTTCTCCTTCTGATAGG
CCTGGGTGTTTCTGTTGACCTGTTGAGGCACAGTCGTCTGAGTGTGTTG
TCATCTCTTTCCTTAGGATTTGAGCACTTGTGAGCCTTCTGAACTATC
AAAGACTTATCTTGCCCTTGTGTAACAGTTTGGCCTTTCAGACTGTTT
CCTATCCTTTTTATTCTGAGCCTTTCAAGCCCCATAAGCTAGATAGAG
ACGTCTCCTCCTTTTCCAGATCTCCTTGTTCCCAATCTTACAGTTAGTT
AGACACAACCTCCCATTGAAGTGCTTACAAtctaga

Adding GFP sgRNA sequences (small script denotes changes made in the sgRNA sequence to avoid secondary structures):

GTTTGGGATCCTATCATCAG
GGCGAGGAATTCTCAACTGA
taGTTTGGGATCCTATCATC

SSODN sequence of the template editing the Tyr718 mutation (small script denotes changes made in the sgRNA sequence to avoid template degradation and adding stop codon):

GACAAGACAAACGCACCTTCTCGGCTCAATCA
TCTCCAGGCCTGGCgCCTGTcAAGCGCAtTAaGAGCAaATGGAGTTTC
CACTGCTAAAAAAGC

Tyr718 sgRNA sequences:

GTGAAGCGCACGTATGAGCA
TGTGAAGCGCACGTATGAGC
GAAGCGCACGTATGAGCAGA

SSODN DNA sequence of the template editing the Pro403 mutation (small script denotes changes made in the sgRNA sequence to avoid template degradation and adding stop codon):

GCAGCAGCCAGGTACTCCCTGCAGACTGCCAACACCTCTCTACcttaA
GGCCAAGTGAAGTCTCCCTCTGTGTCTCAGTCACAGGCATCTAGAGT
ATTA

Pro403 sgRNA sequences:

GCCAACACCTCTCTACCCCC
CAGGCCAAGTGAAGTCTCCC
CCAGGCCAAGTGAAGTCTCC

Single guide RNA (sgRNA), single-stranded oligodeoxynucleotide (SSODN)