



CZK2J00157 EIF2B5_R195H_B04_AB
1113 bp

5'
3'

AGAAGGGGAAAGCTGACGTGAAGCGTGTCCAGGCTACTTTGTGTACCTAGGCTTCAGCAGGATTTTGAGTTCAAATTGATGT
TCTTCCCCTTTTCGACTGCACTTCGCACAAGGGTCCGATGAAACACATGGGATCCGAAGTCGTCTAAAACCTCAAGTTTAACTACA

85

EIF2B5

PCR Forward

AGGAAATAACCATGTTTCCTAACCC

TTAGGGACAAGGGGTCAAGGTATGGAGAGGAAATAACCATGTTTCCTAACCCATAAAACAAGACTGGTGACACAGGATGCTGAAA
AATCCCTGTTCCCCAGTTCCATACTCTCCTTTATTGGTACAAAGGATTGGGTATTTTGTCTGACCACTGTGTCCTACGACTTT

170

EIF2B5

GCATTCATTATAGTTTATAAATACTCTTTGAAGTTGAAGACGCTGGCAAGAACCCAAAAAGCCATCGAGAAGGACTGTGAGTGCT
CGTAAGTAATATCAAGTATTATGAGAACTTCAACTTCTGCGACCGTTCTTGGGTTTTTTCGGTAGCTCTTCTGCACTCACGA

255

EIF2B5

GAAAGGGGGTAAAAATGGGGAAGGCTCAAATGATCTTTATGCTTGATACTCATTCCCCTCACCTCCCTTCTTTAGGAAGT
CTTCCCCCACTTTTTACCCCTCCGAGTTTACTAGAAATACGAACATGTGAGTAAGGGGAGTGGGAGGGAAGGAAATCCTTCA

340

EIF2B5

CAAAGTGGTGCCGCCCTACATCTCTCAATGTGGTTCGAATAATTACATCAGAGCTCTATCGATCACTGGGAGATGTCCTCCGTGA
GTTTCACCACGGCGGGATGTAGAGAGTTACACCAAGCTTATTAATGTAGTCTCGAGATAGCTAGTGACCCTCTACAGGAGGCACT

425

EIF2B5

Sanger Sequencing Primer

TTTGGTGCGCTCTGACTTTC

TGTTGATGCCAAGGCTTTGGTGCGCTCTGACTTTCCTTCTGGTGTATGGGGATGTCATCTCAAACATCAATATCACCAGAGCCCT
ACAACACTACGGTCCGAAACCACGCGAGACTGAAAGAAGACCACATACCCCTACAGTAGAGTTTGTAGTTATAGTGGTCTCGGGAA

510

EIF2B5

GAGGAACACAGGTCAGGATGGGAAAATGACAGGAACAAGGGTTAAAGACCAGCAGAGCCCTGAGACTGCTTTTTTGCAGTTCTGT
CTCCTTGTGTCCAGTCTACCCTTTTACTGTCCTTGTTCCTAATTTCTGGTCTGCTCGGGACTCTGACGAAAAAACGTCAAGACA

595

EIF2B5

Donor Template WT -> SNV

CGGAAGCTAGAAAAAATGTTTCTGTGATGACGATGATCTTCAAGGAGTCATCCCCCAGC

CCCTCCTGTCCTTTATAGGTTGAGACGGAAGCTAGAAAAAATGTTTCTGTGATGACGATGATCTTCAAGGAGTCATCCCCCAGC
GGGAGGACAGGAAATATCCAACCTCTGCCTTCGATCTTTTTTACAAGACACTACTGCTACTAGAAGTTCCTCAGTAGGGGGTCTG

680

EIF2B5

Donor Template WT -> SNV

PAM

Donor Template WT -> SNV

CACCCAACTCATTGCCACGAAGACAATGTGGTAGTGGCTG

CACCCAACTCATTGCCACGAAGACAATGTGGTAGTGGCTGTGGATAGTACCACAAACAGGGTTCTCCATTTTCAGAAGACCCAGG
GTGGGTTGAGCAACGGTGCTTCTGTTACACCATACCGACACCTATCATGGTGTGTTGTTCCCAAGAGGTAAGGTTCTTCTGGGTCC

765

EIF2B5

Donor Template WT -> SNV

gRNA Protospacer

PAM

SNV

GGGTTGAGCAACGGTGCTTC

gRNA Protospacer

GTCTCCGGCGTTTTGCATTTCTCTGGTGTGTGGATATCTGGGGTCTTTGAGATGGGGAAGTGACAGGCTTCAGTGGGAGAAAC
CAGAGGCCGCAAAACGTAAGGAGACCACACACCTATAGACCCAGGAACTCTACCCCTTCACTGTCCGAAGTCACCCTCTTTG

850

EIF2B5

AAATTAAGTCCTTGTAACCTCTCCCCACAGAGCCTGTTTTAGGGCAGTAGTGATGGAGTGGAGGTTTCGATATGATTTACTGGAT
TTTAATTTAGGAACATTGAAGAGGGGTGTCTCGGACAAAGTCCCGTCATCACTACCTCACCTCCAAGCTATACTAAATGACCTA

935

EIF2B5

TGTCATATCAGCATCTGTTCTCCTCAGGTGAGCTCTTTAGGGCTGGGGCTGCACACCCAAAGAGTAGAACTCTGTGGGTCTGTTA
ACAGTATAGTCGTAGACAAGAGGAGTCCACTCGAGAAATCCCGACCCCGACGTGTGGGTTTCTCATCTTGAGACACCCAGACAAT

1020

EIF2B5

CATCTTGAGACACCCAGACAAT

PCR Reverse

TTGTCCCCTTAGAAGGCCAGGGTATATTTCTTCTCCCTGTTTATTTTCATTATTTTTACTTTTATTTTTGAGACAGAGTCTCGC
AACAGGGGAATCTTCCGGTCCCATATAAAGAAGAGGGACAAATAAAAGTAATAAAAATGAAAATAAAAACTCTGTCTCAGAGCG

1105

EIF2B5

AAC

PCR Reverse

TCTGTTGC 3'
+++++ 1113
AGACAACG 5'
EIF2B5

Feature	Location	Size	Start	End	Type
✓ EIF2B5	1 .. 1113	1113 bp	■	→	gene
/note = gene ENSG00000145191 Protein coding					
EIF2B5-DT	1 .. 1113	1113 bp	■	←	gene
/note = gene ENSG00000272721 lncRNA					
EIF2B5-202	1 .. 1113	1113 bp	■	→	prim_transcript
/note = primary transcript ENST00000432982 Nonsense mediated decay					
EIF2B5-203	1 .. 1113	1113 bp	■	→	prim_transcript
/note = primary transcript ENST00000465218 Retained intron					
EIF2B5-204	1 .. 1113	1113 bp	■	→	prim_transcript
/note = primary transcript ENST00000468748 Retained intron					
EIF2B5-207	1 .. 1113	1113 bp	■	→	prim_transcript
/note = primary transcript ENST00000481054 Retained intron					
EIF2B5-208	1 .. 1113	1113 bp	■	→	prim_transcript
/note = primary transcript ENST00000484154 Retained intron					
EIF2B5-209	1 .. 1113	1113 bp	■	→	prim_transcript
/note = primary transcript ENST00000491008 Retained intron					
EIF2B5-210	1 .. 1113	1113 bp	■	→	prim_transcript
/note = primary transcript ENST00000491144 Retained intron					
EIF2B5-211	1 .. 1113	1113 bp	■	→	prim_transcript
/note = primary transcript ENST00000492226 Retained intron					
EIF2B5-212	1 .. 1113	1113 bp	■	→	prim_transcript
/note = primary transcript ENST00000492773 Nonsense mediated decay					
EIF2B5-215	1 .. 1113	1113 bp	■	→	prim_transcript
/note = primary transcript ENST00000647636 Nonsense mediated decay					
EIF2B5-216	1 .. 1113	1113 bp	■	→	prim_transcript
/note = primary transcript ENST00000647909					
EIF2B5-217	1 .. 1113	1113 bp	■	→	prim_transcript
/note = primary transcript ENST00000648145 Nonsense mediated decay					
EIF2B5-218	1 .. 1113	1113 bp	■	→	prim_transcript
/note = primary transcript ENST00000648189 Nonsense mediated decay					
EIF2B5-219	1 .. 1113	1113 bp	■	→	prim_transcript
/note = primary transcript ENST00000648256 Nonsense mediated decay					
EIF2B5-220	1 .. 1113	1113 bp	■	→	prim_transcript
/note = primary transcript ENST00000648314 Nonsense mediated decay					
EIF2B5-221	1 .. 1113	1113 bp	■	→	prim_transcript
/note = primary transcript ENST00000648599 Nonsense mediated decay					
EIF2B5-222	1 .. 1113	1113 bp	■	→	prim_transcript
/note = primary transcript ENST00000648630 Nonsense mediated decay					
EIF2B5-223	1 .. 1113	1113 bp	■	→	prim_transcript
/note = primary transcript ENST00000648682 Nonsense mediated decay					

Feature	Location	Size	Start	End	Type
EIF2B5-224	1 .. 1113	1113 bp	■	→	prim_transcript
/note	= primary transcript ENST00000648882 Nonsense mediated decay				
EIF2B5-225	1 .. 1113	1113 bp	■	→	prim_transcript
/note	= primary transcript ENST00000648890 Nonsense mediated decay				
EIF2B5-226	1 .. 1113	1113 bp	■	→	prim_transcript
/note	= primary transcript ENST00000648915				
EIF2B5-227	1 .. 1113	1113 bp	■	→	prim_transcript
/note	= primary transcript ENST00000649545 Nonsense mediated decay				
EIF2B5-228	1 .. 1113	1113 bp	■	→	prim_transcript
/note	= primary transcript ENST00000649688 Nonsense mediated decay				
EIF2B5-229	1 .. 1113	1113 bp	■	→	prim_transcript
/note	= primary transcript ENST00000649814 Retained intron				
EIF2B5-231	1 .. 1113	1113 bp	■	→	prim_transcript
/note	= primary transcript ENST00000650270 Nonsense mediated decay				
EIF2B5-DT-201	1 .. 1113	1113 bp	■	←	prim_transcript
/note	= primary transcript ENST00000608135 lncRNA				
EIF2B5-DT-202	1 .. 1113	1113 bp	■	←	prim_transcript
/note	= primary transcript ENST00000608232 lncRNA				
EIF2B5-214	1 .. 749	749 bp	■	→	prim_transcript
/note	= primary transcript ENST00000498831 protein_coding_CDS_not_defined				
EIF2B5-230	1 .. 658	658 bp	■	→	prim_transcript
/note	= primary transcript ENST00000650244 Nonsense mediated decay				
EIF2B5-216	336 .. 962	627 bp	■	→	CDS
▶ 3 segments = 469 bp					
/codon_start = 1					
/note = coding sequence ENSP00000498164					
/translation = KSKWCRPTSLNVVRIITSELYRSLGDVLRDVKALVRSDFLLVYGDVISNITRALEEHS, , SVPPVLYRLRRKLEKNVSVMTMIFKESSPSHPTRCHEDNVVAVDSTTN RVLHFQKTQGLRRFAFPL, , SLFQGSDDGVEVRYDLLDCHISICSPQ 156 amino acids = 17.7 kDa					
EIF2B5-226	336 .. 962	627 bp	■	→	CDS
▶ 3 segments = 445 bp					
/codon_start = 1					
/note = coding sequence ENSP00000497160					
/translation = KSKWCRPTSLNVVRIITSELYRSLGDVLRDVKALVRSDFLLVYGDVISNITRALEEHR, , LRRKLEKNVSVMTMIFKESSPSHPTRCHEDNVVAVDSTTNRVLHFQKT QGLRRFAFPL, , SLFQGSDDGVEVRYDLLDCHISICSPQ 148 amino acids = 16.9 kDa					
✓ Donor Template WT -> SNV	621 .. 720	100 bp	■		misc_feature
✓ PAM	680 .. 682	3 bp	■		misc_feature
✓ gRNA Protospacer	683 .. 702	20 bp	■		misc_feature
✓ SNV	691 .. 691	1 bp	■		misc_feature
/note = WT = G SNV = A					

Primer	Length	Binding Sites	Tm	Date Added
✓ PCR Forward /sequence = AGGAAATAACCATGTTTCCTAACCC 40% GC / 7594.0 Da	25-mer	113 .. 137 →	57°C	Sep 29, 2023
✓ Sanger Sequencing Primer /sequence = TTTGGTGGCTCTGACTTTC 50% GC / 6081.0 Da	20-mer	441 .. 460 →	58°C	Sep 29, 2023
✓ Donor Template WT -> SNV /sequence = CGGAAGCTAGAAAAAATGTTTCTGTGATGACGATGATCTTCAAGGAGTCATCCCCAGCCACCAACTCATTGCCACGAAGACAATGTGGTAGTGGCTG 48% GC / 30,868.1 Da	100-mer	621 .. 720 →	76°C	Sep 29, 2023
✓ gRNA Protospacer /sequence = CTTCGTGGCAACGAGTTGGG 60% GC / 6189.1 Da	20-mer	683 .. 702 ←	62°C	Sep 29, 2023
✓ PCR Reverse /sequence = CAATAACAGACCCACAGAGTTCTAC 44% GC / 7588.0 Da	25-mer	999 .. 1023 ←	56°C	Sep 29, 2023