

ASK2J00174_PRKN_R275W_G03_BB
7976 bp

5'
3'

GAGGCAGTGAGGTGTTAGGCTCCAGAGAAAGTTCCTTGGAGATCTTTAGTCTTGAACTGGACCTAGGAATTTGTGATTTGGCTTT
CTCCGTCACTCCACAATCCGAGGTCTCTTTCAAGGAACCTCTAGAAATCAGAACTTGACCTGGATCCTTAAACACTAAACCGAAA

85

PRKN >

PRKN-206 >

GAATATGAAGGTGAGTATTACCGTGAGACTAGATGGCAAAGAGCATGCATCTAGGTGTACAGGAACTAGAAGAATCCTAGGCTAC
CTTATACTTCCACTCATAATGGCACTCTGATCTACCGTTTCTCGTACGTAGATCCACATGTCCTTGATCTTCTTAGGATCCGATG

170

PRKN >

PRKN-206 >

GCAAGGACCTTCCCAGCTGGAGGGGACGGAGGTGCGGAGAGAACAGGATGGACGGTAGGGGAGGGGCAGTTTATTTTACGAGGAT
CGTTCTGGAAGGGTCGACCTCCCCTGCCTCCACGCCTCTCTTGCTACCTGCCATCCCCTCCCCTCAAATAAAATGCTCCTA

255

PRKN >

PRKN-206 >

GAAATGAAAGGAAGTCTGCGAAGTTCCTAGCAAGCCACCTAACCCGAAGTAGGTGCCCATAAACACTAGCTTTCCCCTCCTCTTT
CTTTACTTTCTTCAGACGCTTCAAGGATCGTTCGGTGGATTGGGCTTCATCCACGGGTATTTGTGATCGAAAGGGGAGGAGAAA

340

PRKN >

PRKN-206 >

GATTTAGCATTTAGGAAGTTAATGATGTAGACCTTCTAGCCATGAAAAGATTTTTACTCCTTTCTTAGGTGATTAATCTAATAA
CTAAATCGTAAATCCTTCAATTAATACTACATCTGGAAGATCGGTACTTTTCTAAAAATGAGGAAAGGAATCCACTAATTAGATTATT

425

PRKN >

PRKN-206 >

CTTTTTATTGGTGTGATGTTTATTCTCACCTAACTTTCCAAAACACTACAAGGAATATCTTAATAGGAGAGGAGCAATCTTAGCTC
GAAAAATAACCACAGTACAAATAAGGAGTGGATTGAAAGGTTTTGATGTTCTTATAGAATTATCCTCTCCTCGTTAGAATCGAG

510

PRKN >

PRKN-206 >

ACAGCTGTATCAAGAATTCCAGGTGACTGATAATTCTATGTGAAATGCACATATACACCGTCTTTATAACATTATCTGTGTATGT
TGTCGACATAGTTCTTAAGGTCCACTGACTATTAAGATACACTTTACGTGTATATGTGGCAGAAATATTGTAATAGACACATACA

595

PRKN >

PRKN-206 >

CGTGTGTGTGTATAAAGGCAGCATATATACTTTTTCTATATCTTCATCTGTGTATCTTAGCACATACATTCATATATTGATATCT
CGCACACACACATATTTCCGTCGTATATATGAAAAGATATAGAAGTAGACACATAGAATCGTGTATGTAAGTATATAACTATAGA

680

PRKN >

PRKN-206 >

GTATCTATCATTTATCTATATCTGTATATAGGTATATATCCAAGTTGACTGTGTATGTATAGTAATAGACAATCAGAATTCCTGA
CATAGATAGTAAATAGATATAGACATATATCCATATATAGGTTCAACTGACACATACATATCATTATCTGTTAGTCTTAAGGACT

765

PRKN >

PRKN-206 >

ATGACTCATTTATCATTTTTGACTCCCTGTAACCTTGTAATTTCTTTCTTTTCCGAAGAGGACATGCAGAAACACACACAACATT
TACTGAGTAAATAGTAAAAACTGAGGGACATTGAACATTTAAAGAAAAGAAAAGGCTTCTCCTGTACGTCTTTGTGTGTGTGTAA

850

PRKN >

PRKN-206 >

CCAGCTTCCCCGGTTGCATTCCACACCTGCGTCTGGGCGAGTGGCGTTTTCTTCAAGGGAGTTACATGAGTCTCTGTCTTCACTTCC
GGTCGAAGGGGGCCAACGTAAGGTGTGGACGCAGACCCGTCAACGCAAAGAAGTTCCCTCAATGTACTCAGAGACAGAAGTGAAGG

935

PRKN

PRKN-206

AATGCTAGTCCCTTCACTGCTCACTCTCTGGTAACCCACTGTTACCTGGTGCCAATTTCTCCTATTTTTTTATTCAAGGTAGACAT
TTACGATCAGGGGAAGTGACGAGTGAGAGACCATTGGGTGACAATGGACCACGGTTAAAGAGGATAAAAAATAAGTTCCATCTGTA

1020

PRKN

PRKN-206

CCTCAGTTCAAGGAGGTTGAGGTGGCCTGGTGCAGCTGTAGCTTAGTTTTTCAGTAGGACTCTTCCTGTGTCCCTAGGAAGATACA
GGAGTCAAGTTCCTCCAACCTCCACCGGACCACGTGCAGATCGAATCAAAGTCATCCTGAGAAGGACACAGGGATCCTTCTATGT

1105

PRKN

PRKN-206

CTTCACTCTGTGGGAACCAAACTCTGGACCCACCGCATCTGCAGCTGTCTATGCTTCACTGCCAGTTGCAGGATGGGTAAAGATG
GAAGTGAGACACCCTTGGTTTTGAGACCTGGGTGGCGTAGACGTGCAGAGATACGAAGTGACGGTCAACGTCTACCCATTCTAC

1190

PRKN

PRKN-206

GACTATTTATATTGGAAGGTGTGCACTTCCAGGCCCAAGACTTGGACCTCTAAACTTTCCCTAATGTCCCTAATGGCTCCTGTC
CTGATAAATATAACCTTCCACACGTGAAGGTCCGGGGTTCTGAACCTGGAGATTTGAAAGGGATTACAGGGATTACCGAGGACAG

1275

PRKN

PRKN-206

ACTGCACAGGGTTGATTTACACCATGGCCGCCAACGTAAGTGTCTGTTTCTTGTAAATGTTCTCCAAATAGCAGGATGTCATTAA
TGACGTGTCCCAACTAAAGTGTGGTACCGGCGGTTGCATCACGAACAAAGAACAATTACAAGAGGTTTATCGTCTACAGTAATT

1360

PRKN

PRKN-206

TAGAGTAGGACAATTGATGTTCCATGTGTTGTCTAGATGGTATGAGTCATTTGGGATCATATTTAAACTGAAGGAGACAACCTATA
ATCTCATCCTGTTAACTACAAGGTACACAACAGATCTACCATACTCAGTAAACCCTAGTATAATTTTGACTTCTCTGTTGATAT

1445

PRKN

PRKN-206

GAAGTGTGCTGTTGTCCATCCATGTGAGAGAGAACTCTTCTAACAGGAATGGAAAAGCCTGCAGAAGCTACACTGATGGCCGCAT
CTTCACACGACAACAGGTAGGTACTCTCTCTTGAGAAGATTGTCTTACCTTTTCGGACGTCTTCGATGTGACTACCGGCGTA

1530

PRKN

PRKN-206

ACCACGCAGCCATGGCTTTCTGGGCCACTGTGGCGGGAGTTCGTGGGCTGACCATTTAGGCTCTGTAAGTTTTCTTTATGTTTCC
TGGTGCCTCGGTACCGAAAAGACCCGGTGACACCGCCCTCAAGCACCCGACTGGTAAATCCGAGACATTCAAAGAAAATACAAAGG

1615

PRKN

PRKN-206

TCTACAGGGTCATTTCTAAGCTTTTTGTTTTGTTTTGTTTTGAGGCAGAGCCTCACTCTGTAGCCAGGCTGGAGTGCAGTGGTG
AGATGTCCAGTAAAGATTGAAAAAACAACAAACAAAACTCCGTCTCGGAGTGAGACATCGGGTCCGACCTCACGTCACCAC

1700

PRKN

PRKN-206

CGATCTCGGCTCACTGCAAGCTCCC GCGTTTCATGCCATTACCTGCCTCAGCCTCCTGAGTAGCTGGGATTACAGGC GCCCGCCA
GCTAGAGCCGAGTGACGTTTCGAGGGCGCAAGTACGGTAAGTGGACGGAGTCGGAGGACTCATCGACCCTAATGTCCGCGGGCGGT

1785

PRKN

PRKN-206

CCACGCCGGGCTAATTTTTTGTATTTTTGGTAGAGACGGGCTTTCGCTGTGTTAGCCAGGATGATCTCCATCTCCTGACCTCGTG
GGTGCGGGCCGATTAAAAAACATAAAAAACCATCTCTGCCCGAAAGCGACACAATCGGTCTACTAGAGGTAGAGGACTGGAGCAC

1870

PRKN

PRKN-206

ATCCGCCTGCCTCAGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCACGCCTGGCCTCTAAGCTTTCTTTTTAACTTTGT
TAGGCGGACGGAGTCGGAGGGTTTCACGACCCTAATGTCCGCACTCGGTGGTGC GGACCGGAGATT CGAAAGAAAAATTGAAACA

1955

PRKN

PRKN-206

TATATACAGGCACATTTTCATAAATGTTCTAATATTTTCTCCATGAATTAGTAGCAGATTGGGAGGTCTATAAAGGTTTTAGTCT
ATATATGTCCGTGTAAAAGTATTTACAAGATTATAAAGAGGTA CTTAATCATCGTCTAACCTCCAGATATTTCCAAAATCAGA

2040

PRKN

PRKN-206

ACCATGTTGCTGAAAAGCAAGATGGAGAATATTTTTACATAACAGCTGTGAGAGAAAAAGGTAGAATACAGCAGCTTCATAGGGT
TGGTACAACGACTTTTCGTTCTACCTCTTATAAAAAGTGATTGTGCGACACTCTCTTTTTCCATCTTATGTCGTGGAAGTATCCCA

2125

PRKN

PRKN-206

CGCAAAGTAAAAAGTATGTGTGTGCTTGAGCATGTGTATGCGAGTACTGTTTGGTTAGAAATAGGAAAGCATTATGAAGGAC
GCGTTTCACTTTTTTCATACACACACGAACTCGTACACATACGCTCACTGACAAACCAATCTTTATCCTTTTCGTAATACTTCCTG

2210

PRKN

PRKN-206

TTGGATAGGTTCCAAGAGGGGAAAGGAGAAGCCGCACCTTTAGGTGCGCCCTTGCTCAGATTAAGTTGACCGATTACTTACACAT
AACCTATCCAAGGTTCTCCCTTTCTCTTTCGGCGTGGAATCCACGCGGGAACGAGTCTAATTCAACTGGCTAATGAATGTGTA

2295

PRKN

PRKN-206

CCATGGCATTAAAAATACCAAGGAATTGTATTTTTCTTTGTTTGTATTACATATTGCTTTGAAGTAAGTGGGATAACAGAATTTTGA
GGTACCGTAATTTTATGGTTCCCTTAACATAAAAAGAAACAAACATAATGTATAACGAAACTTCATTACCCCTATTGCTTAAACT

2380

PRKN

PRKN-206

AAATCTTTTAGGTGTTAAGAAATTATCTTTTATATTATTAGTATTATTCATTTCTCTAGAAAAAGGGCTTTTGAAGAGCTCTTAT
TTTAGAAAAATCCACAATTCTTTAATAGAAAAATATAATAATCATAATAAGTAAAGAGATCTTTTTCCCGAAAACCTCTCGAGAATA

2465

PRKN

PRKN-206

AGGCGTTAAAGATTGGGTATAAAATGAACATGTTTATTTTGTATTTTGTACAATTACATAGGAAATAGGCTTATCTAAATAGAC
TCCGCAATTTCTAACCCATATTTTACTTGTACAAAATAAAACATAAAACAATGTTAATGTATCCTTTATCCGAATAGATTTATCTG

2550

PRKN

PRKN-206

TCCAATAACTTTTCTTACTATTAAAAATCGCCTTGGGGCTGATTTTCAAATTCATGTATTGAGCTTGTCTCCTGTTTGACATAAACTT
AGGTTATTGAAAAGAAATGATAATTTTAGCGGAACCCCGACTAAAGTTTAAGTACATAAAGTAACTCGAACAGAGGACAAACTGTATTTGAA

2635

PRKN

PRKN-206

GTGTGGTTCGTTTTCCAGTAAAAATACATGGCTTTTAAAGATTTTTTTTTTCTACAGAGTATTTTAAAGGGATAAAAAAATTAGGA
CACACCAAGCAAAAAGGTCATTTTTATGTACCGAAAATTCTAAAAAAAAGATGTCTCATAAAATTTCCCTATTTTTTTTTAATCCT

2720

PRKN

PRKN-206

TTTATATATATTGATTAATTAGTAATCCCATAACCATACTCTGAGAACTGAATATTTGGATGGTTTTCGAGATGGCACAAATAGAC
AAATATATATAACTAATTAATCATTAGGGTATTGGTATGAGACTCTTTGACTTATAAACCTACCAAAGCTCTACCGTGTATCTG

2805

PRKN

PRKN-206

AAAACTTGCAGTAGAAGAATCCCTGTTGGATAACCTTTTATCCCTAAATTTCTACTTTTTTATTTGCCAATAAAATGTGAGAAAA
TTTTAGAACGTCATCTTCTTAGGGACAACCTATTGGAAAATAGGGATTTAAGATGAAAAAATAAACGGTTATTTTACACTCTTTT

2890

PRKN

PRKN-206

TGTTTAAACGTTTTTACTTTGATGCAATAGTAATTTTTCTTTTGATAGTGGGGAAATTCAGATTCTATTGTTATAACATAGTTATA
ACAAATTGCAAAAATGAAACTACGTTATCATTAAAAAGAAAACATACACCCCTTTAAGTCTAAGATAACAATATTGTATCAATAT

2975

PRKN

PRKN-206

ATTAAATTACCAAGGAATTTTTATTTCTTTGTTTTGTATTACATATTGCTTTAAAATAAGTGGGATAGCAGAATTTTGAAAATCT
TAATTTAATGGTTCCTTAAAAATAAAAGAAAACAAAACATAATGTATAACGAAATTTTATTACCCCTATCGTCTTAAAACTTTTAGA

3060

PRKN

PRKN-206

GTTATTTCACTGTTGAATTTTCTCTAATTATGTTTATGGGATTAAGTAAATCACTATATACAAGTCCTAAATTTTTTTGATTC
CAATAAAGTGACAACCTTAAAAGAGATTAATACAAATACCCCTAATGATCATTTAGTGATATATGTTTCAGGATTTAAAAAACTAAG

3145

PRKN

PRKN-206

PCR Forward

actttacaatgc

CCTTAAAAACTTTGGAGGAAAAAATATTTAAAAATGTTTTAAAGATTTAAATTTTTAAAAACATTCATTTAAAACTTTACAATGC
GGAATTTTATGAAACCTCCTTTTTTTATAAATTTTACAAAATTTCTAAATTTAAAAATTTTGTAAAGTAAATTTTGAATGTTACG

3230

PRKN

PRKN-206

PCR Forward

ctggfactatggg

CTGGTACTATGGGAATAGCAAAAATAAACATAGGAACTACTTTCCAGGAGATCACAGTCTATGAGAAAAGGAGAAGATATGAATACT
GACCATGATACCCCTTATCGTTTTATTTGTATCCTTGATGAAAGGTCCTCTAGTGTCAGATACTCTTTCTCTTCTATACTTATGA

3315

PRKN

PRKN-206

GTGGTGTAAACGGATCAATAGAAATATATACAAGCAGATGGGATGATTTGATAGGTTAATTGGGAATTCTGAGTCAGGGAAGA
CACCACATTATTGCCTAGTTATCTTTATATATGTTTCGTCTACCTACTAACTATCCAATTAACCCTTAAGACTCAGTCCCTTCT

3400

PRKN

PRKN-206

CTTCCAGAAAGAGATTATATTTTAGCTCAGGTTTAAATCAAAGATTGATAAATGTGTTAACATAAAAAATGTAAAATTAGGAGAA
GAAGGTCTTTCTCTAATATAAAATCGAGTCCAAATTAGTTTTCTAACTATTTACACAATTGTATTTTTTACATTTTAAATCCTCTT

3485

PRKN

PRKN-206

TCAGTTTTCTATGTAGTTTCATTGAGTGCCTCCAATTTTTAAGATGTTGTGTTGGTATACATGAGCTTAATGCTTAGCAGCTCCGG
AGTCAAAAGATACATCAAGTAACTCACGGAGGTTAAAAATTCTACAACACAACCATATGTACTCGAATTACGAATCGTCGAGGCC

3570

PRKN

PRKN-206

Sanger Sequencing Primer

tctttgcacagagcacagtc

TCTTTGCACAGAGCACAGTCTACACAACCCTCCAGGATTACAGAAATTGGTCTAAAGCACGTGCTGCCTTTCCACACTGACAGGT
AGAAACGTGTCTCGTGTGTCAGATGTGTTGGGAGGTCCTAATGTCTTTAACCAGATTTTCGTGCACGACGGAAAGGTGTGACTGTCCA

3655

PRKN

PRKN-206

ACTAGAGGAAACATCTTCCTTTCTCTCTGCAGGAGCCCCGTCTGGTTTTCCAGTGCAACTCCCGCCACGTGATTTGCTTAGACT
TGATCTCCTTTGTAGAAGGAAAGAGAGACGTCTCGGGGCGAGGACAAAAGGTCACGTTGAGGGCGGTGCACTAAACGAATCTGA

3740

PRKN

PRKN-206

S P V L V F Q C N S R H V I C L D

ENSE00002169394

PRKN-206

Donor Template WT -> SNV

TGA

Donor Template Wt -> SNV

gRNA Protospacer

GTGTGACAAGACTCAATGAT

GTTTCCACTTATACTGTGTGACAAGACTCAATGATCGGCAGTTTGTTCACGACCCCTCAACTTGGCTACTCCCTGCCTTGTGTGGG
CAAAGGTGAATATGACACACTGTTCTGAGTTACTAGCCGTCAAACAAGTGCTGGGAGTTGAACCGATGAGGGACGGAACACACCC

3825

PRKN

PRKN-206

C F H L Y C V T R L N D R Q F V H D P Q L G Y S L P C V G

ENSE00002169394

PRKN-206

Donor Template WT -> SNV

gRNA Protospacer Sequence

PAM

Silent SNV
SNV

CAAAGGTGAATATGACACACTGTTCTGAGTTACTGACCGTCAAACAAGTGCTGGGAGTTGAACCGATGAGGGACGGAACACACCC

Donor Template Wt -> SNV

TAAGTCTAGCATGTTTTCTCTCCATCTCTAATGCTAATGAAGAACAGAAGAACAATTATTGATGTAAAACTGGCTTAGATATACG
ATTCAGATCGTACAAAAGAGAGGTTAGAGATTACGATTACTTCTTGTCTTCTTGTTAATAACTACATTTTTGACCGAATCTATATGC

3910

PRKN

PRKN-206

K S S M F S L H L *
----- (in frame with PRKN-206) ----->

Donor Template WT -> SNV

attcagatcgta

Donor Template Wt -> SNV

TAAACCCTAGCAGAAGAATTTAAATTTGATCATTGCTGGATATGAAACATTAATGTTTGGATCGCAAAAAGATAAAAAGTTCTGGGG
ATTTGGGATCGTCTTCTTAAATTTAAACTAGTAACGACCTATACTTTGTAATTACAAACCTAGCGTTTTCTATTTTCAAGACCCC

3995

PRKN

PRKN-206

AATGAAGGAATTGTGTTGAACTGGAAAATGCATTATTTGCATAAAGGCATTGAGAATAAGTTTGTCAATATTATTTCAGCCAAGGT
TTACTTCTTAACACAACCTTGACCTTTTACGTAATAAACGTATTTCCGTAACCTTATTCAAACAGTTATAATAAGTCGGTTCCA

4080

PRKN

PRKN-206

ATACTAAGTTTTTCTGTGGGTTAGAGTCACTCTCCATGTTCTAGATTTGTTACCGTGGAACTAGAGCAGTATTACCTAATTTTTTA
TATGATTCAAAAAGACACCCAATCTCAGTGAGAGGTACAAGATCTAAACAATGGCACCTTGATCTCGTCATAATGGATTAAAAAT

4165

PRKN

PRKN-206

ggtacaagatctaacaatggcacc
PCR Reverse

AATCGTATACCTCTATCACTCAAAAATGTTGAACACATACCCAATATATATAAAAATAACATATGTGAAAAAGAAAAGCAGAATGAGA
TTAGCATATGGAGATAGTGAGTTTTACAACCTTGTGTATGGGTTATATATATTTTTATTGTATACACTTTTTTCTTTCTGCTTACTCT

4250

PRKN

PRKN-206

TAAACCTGAACTACTTAATATTTTTATCTTTTACATTACAAAGCACCTTTACTTGTACTATACTGTTATTACATATATACATTT
ATTTGGACTTGATGAATTATAAAAATAGAAAAGTGAATGTTTCGTGGGAAATGAACATGATATGACAATAATGTATATATGTAAA

4335

PRKN

PRKN-206

TAATGGAAGTGAAATTCATGTAACCAATTAACCATTTACAAGTGTACAATTCAGTGGCATTGTTGTCATTACAAATGTTGCACAA
ATTACCTTCACTTTAAGTACATTGGTTAATTGGTAAATGTTACATGTTAAGTCACCGTAAAACACGTAAGTGTTACAACGTGTT

4420

PRKN

PRKN-206

CCACTACCTCTGCCTGGCTTCAAAACTTTCTGAACACCTCCTACCCAGCTAATCACTGCCTGTGACCCCCTGTCTTAGCCCTGGC
GGTGATGGAGACGGACCGAAGTTTTGAAAGACTTGTGGAGGATGGGTCGATTAGTGACGGACACTGGGGGACAGGATCGGGACCG

4505

PRKN

PRKN-206

CACCACCAATCACTTTCTTTCTCTATGGATTTGCCTATTGTAGGTATTTCTATAAAAAGAAATCGTACAATAGGTGACCTTTTCGT
GTGGTGGTTAGTGAAAAGAAAAGAGATACCTAAACGGATAACATCCATAAAGGATATTTTCTTTAGCATGTTATCCACTGGAAAAGCA

4590

PRKN

PRKN-206

GTCTGCCTTATTTCACTTAGCATAGTGTATTTGAGGTTTATTCAAGTTGTAGCGTGTATGAATATTTCTTTCTCTTTGTGGCTG
CAGACGGAATAAAGTGAATCGTATCACATAAACTCCAAATAAGTTCAACATCGCACATACTTATAAAGAAAAGGAGAAAACACCGAC

4675

PRKN

PRKN-206

AATAATATTCCACTGTGTGGATACCCACAAATTTGTGTGTCCATTCATCTGCTGATGGGCATTTGTGTTGTTTCCGCTCTTTTTGG
TTATTATAAGGTGACACACCTATGGGGTGTAAACACACAGGTAAGTAGACGACTACCCGTAAACACAACAAAGGCAGAAAAACC

4760

PRKN

PRKN-206

CTATTATGAATAATGCCGTTGTAAACATTCATATATAAGTTTCTGTATGAACATTTGCTTTTCACTTACCTTGGATATATACCGAG
GATAATACTTATTACGGCAACATTTGTAAGTATATATTCAAAGACATACTTGTAAACGAAAGTAAATGGAACCTATATATGGCTC

4845

PRKN

PRKN-206

AAGCAGAATTCGAAGTTTAACTTTAGGAGAAGTCCCACTGTGTTCCACAGCTGCTGTACCGTTTTATATTGCCACCAGCAGTG
TTCGCTCTTAAGCTTCAAATTTGAAATCCTCTTGACGGGTGACACAAGGTGTCGACGACATGGCAAAATATAACGGTGGTCGTCAC

4930

PRKN

PRKN-206

TAGCAATGTCCCAGGTTTCTCTCTCCACATTCCTTGTGTCGTCACCTTGTACTGTTTCTAACTAGTCATCCTAGTAAGTGTGAAGT
ATCGTTACAGGGTCCAAAGAGAGAGAGGTTAAGAACAGCAGTGAACAATGACAAAGATTGATCAGTAGGATCATTACACTTCA

5015

PRKN

PRKN-206

GGTGTCTTATTGTGGATTTGATTTTCACTTCTCTAATGACTGTGATGTTGATTATCTTAATTCATATCTCTTCTTATAAGAATG
CCACAGAATAACACCTAACTAAAAGTAAAGAGATTACTGACACTACAACCTAATAGAATTAAGTATAGAGAAGGAATATTCTTAC

5100

PRKN

PRKN-206

TCGGTTCAAGTCCCTTTCTTTGCTCATTTTTAAATTGAGTTATGTTTTTGTGTTGAGTTGTAAGAGTTCTTTATATATTCTGGAT
AGCCAAGTTCAGGAAAAGAAACGAGTAAAAATTTAACTCAATACAAAACAACAACCTCAACATTCTCAAGAAATATATAAGACCTA

5185

PRKN

PRKN-206

ACTGGATCCTTACCAGATATAGGATATGCACATATTTCTCCATTCTATAGGTTGTCTTTTCACTTTCTTCATAACGTCCTTTGG
TGACCTAGGAATGGTCTATATCCTATACGTGTATAAAGAGGGTAAGATATCCAACAGAAAAGTGAAGAAGTATTGCAGGAAAACC

5270

PRKN

PRKN-206

TGAACAAAAGTTTCTAGTTTTGATGAAATGCAATTTATCTGTTTTTGTGTTGTTGCTAATACTTTTTGTGTCAAACAAAAGACT
ACTTGTTTTCAAAGATCAAACACTACTTTACGTTAAATAGACAAAACAACAACAACGATTATGAAAAACACAGTTTGTCTTCTGA

5355

PRKN

PRKN-206

TCATTGCCATATCTGAGATCATGATGATTTGCTTCCATATTTTCTACCAATAGCTTACCTCTTGTATTTAGGTCATTAATCTAGT
AGTAACGGTATAGACTCTAGTACTACTAAACGAAGGTATAAAAAGATGGTTATCGAATGGAGAACATAAAATCCAGTAATTAGATCA

5440

PRKN

PRKN-206

TTGAGGTAATTTATGTACCTGGAGTGAAGTAAAAGTTCTATCTCTCTCTATGTATAAATGACTGCAATGTGACTAAATATGTTT
AACTCCATTAATAACATGGACCTCACTTCATTTTCAAGGATAGAGAGAGATACATATTTACTGACGTTACACTGATTTATACAAA

5525

PRKN

PRKN-206

CATTAATTTCTTCAAACTTAATTTGAAACTATGGGATACCTTGACTCAATGGTGAGGTTTTAAGTTCAATTTATTTCAAGATTTA
GTAATTAAGAAGTTTTGAATTAAACTTTGATACCCTATGGAAGTGAAGTACCCTCCAAAATTCAGTTAAATAAAGTTCTAAAT

5610

PRKN

PRKN-206

GTTTTAATGTCAATTATAGCTGAAAAATATACCTCCAAATGATAAAAAGATCCAAATGGAATAAATTAATTTCTTTGTTGACTTT
CAAAATTACAGTTAATATCGACTTTTTATATGGAGGTTTACTATTTTTCTAGGTTTACCTTATTTAATTAAGAAACAACCTGAAA

5695

PRKN

PRKN-206

GTAAATTATGATACTCACTTTTAAGCATATCTACCAATAATGCAATGATTTTTAAACTAAGATTCACATAATATATGTTAACAT
CATTTAATACTATGAGTGAAAATTCGTATAGATGGTTATTACGTTACTAAAAATTTTGATTCTAAGTGTATTATATACAATTGTA

5780

PRKN

PRKN-206

ATTGTTAAGGAAAACCTGTTGAAAGTTATTGTGCCTTTCTTTTTAACAAAAGCATCCAAAATCTAGTGAAGTTTATTATTTACAG
TAACAATTCCTTTTGAACAACCTTTCAATAACACGGAAAGAAAATTTGTTTTCGTAGGTTTTAGATCACTTCAAATAATAAATGTC

5865

PRKN

PRKN-206

ATTGGAAAACCTCTGTAATGCTTTTTAATGTGACAATTTGTTTTGGTAAGCCTTCTGCCTTCACAAAGCCACAAACAATAGAAACA
TAACCTTTTGAGACATTACGAAAATTACACTGTTAAAACAAAACCATTTCGGAAGACGGAAGTGTTCGGTGTGTTATCTTTGT

5950

PRKN

PRKN-206

TTTCTAAACACACATTTTCAAGTCTTCCCTTCACACTCTATCTTTTTAGTTATCAGTTTCATTTTGAACCCATTTTCTTTTAAATGT
AAAGATTTGTGTGTAAGTTTCAGAAGGGAAGTGTGAGATAGAAAAATCAATAGTCAAGTAAAACCTTGGGTAAAAGAAAATTACA

6035

PRKN

PRKN-206

GTATCTTTTATTTTAGACGATTTCAAACATACAAAAGTAAGGAAAAATACTACAGTGAACCTTCTGCACCCATTAGTCAGGAT
CATAGAAAAATAAAATCTGCTAAAGTTTGATGTTTTTCACTTCTTTTTATGATGTCACCTTGGAAAGGACGTGGGTAAATCAGTCCTA

6120

PRKN

PRKN-206

TTGCAGTGTACCAAGGTGCTCTCGACCTTTCTTGTAATTTCTCGCCGAATGACCTGCAAGCAGCCATTTTTCTCAGGACCTCTGGC
AACGTACATGGTTCCACGAGAGCTGGAAAGAACATTAAGAGCGGCTTACTGGACGTTTCGTTCGGTAAAAGAGTCTCTGGAGACCG

6205

PRKN

PRKN-206

TCCCTTTTCGTTAGGAAATAGTATTTAAAAAGTCTTGGTGCTTGGAAATGCTCATTGTCACCATGTTGGTTACTGTTTCTAGGCCTAGT
AGGGAAAAGCATCCTTTTATCATAAAATTTTCAGAACCACGAACCTTACGAGTAACAGTGGTACAACCAATGACAAAAGATCCGGATCA

6290

PRKN

PRKN-206

GGAATAAGCTAGGAGACTTTTTTTTTTTTTAAGTACAAATGCAATATTAGTTATACTAACATTTTTCAGTTCAAATCCAGTGTACC
CCTTATTCGATCCTCTGAAAAAAAAAAAAATTCATGTTTACGTTATAATCAATATGATTGTA AAAAGTCAAGTTTAGGTCACAATGG

6375

PRKN

PRKN-206

AAATTTTCATTGAAAAGTCACCAATATTACAACCTGTTGTTTCTTTACCCCTTGGCAAAAATTCTGTTACTGAGTGATACCAACAA
TTTAAAAGTAACCTTTTCAGTGGTTATAATGTTGACAACAAAGAAAGTGGGAACCGTTTTTAAGACAATGACTCACTATGGTTGTT

6460

PRKN

PRKN-206

AATACTCATTGCTTACTTTGGAATGCACCCACAACAGTATCAGTATTACAGTATCGACACCATCACCTAAGTGTGATTATTG
TTAATGAGTAAACGGAATGAAACCTTACGTGGGTGTTGTCATAGTCATAATGTCATAGCTGTGGTAGTGGATTACACTAATAAC

6545

PRKN

PRKN-206

AAAAAATGTTAAGATTTTTGCAGTTTGTGTTTGTGTCATTAGGGTATATCCTTATAGGGATATAAACTCATATAAGTTAATGTATAG
TTTTGTTACAATTCATAAAACGTCAAAACAAAACAGTAATCCCATATAGGAATATCCCTATATTTGAGTATATTTCAATTACATATC

6630

PRKN

PRKN-206

TTATGTCATCAATTGAATATGTATTTCTCATTGCTTTTTTTTTAAATTTTTTAATTAATTAATTTATTTTTTTGAGATGGAGTCTT
AATACAGTAGTTAACTTATACATAAAAGAGTAACGAAAAAAAAATTTAAAAAATTAATTAATTAATAAAAAAAAACTCTACCTCAGAA

6715

PRKN

PRKN-206

GCTCTGTCGCCGAGGCTGGAGTGCAGTGGCATGATCTCGGCTCACTGCAACCTTGGCCTCCC GGGTTCAAGTGATTCTCCTGCCT
CGAGACAGCGGCTCCGACCTCACGTCACCGTACTAGAGCCGAGTGACGTTGGAACCGGAGGGCCCAAGTTCACTAAGAGGACGGA

6800

PRKN

PRKN-206

CAGCCTCCCAAGTAGCTGGGACTACAGGTGCATGCCACCATGCCCTGCTAATTTTTGTATTTTTAGTAGAGATGGGGTTTTCGCCA
GTCGGAGGGTTTCATCGACCCTGATGTCCACGTACGGTGGTACGGGACGATTA AAAACATAAAAATCATCTCTACCCCAAAGCGGT

6885

PRKN

PRKN-206

TGTTAACCAGGCTGGTCTCTAACTCCTGACCTCAGGTGATCCGCCACCTCAGCCTCCCAAGGTGCTGGGATTACAGGCATGAGC
ACAATTGGTCCGACCAGAGATTGAGGACTGGAGTCCACTAGGCGGGTGGAGTCGGAGGGTTCCACGACCCTAATGTCCGTA CTG

6970

PRKN

PRKN-206

CACTGCACCTGGCCTTTTCATTGCTTTTTAAATTTATTGTGTTTTTCATAATATGTA AAAATATTTCCATTATTCCAAAGCAAAGCTA
GTGACGTGGACCGGAAAAGTAACGAAAATTTAAATAACACAAAAGTATTATACATTTTATAAAGGTAATAAGGTTTCGTTTTTCGAT

7055

PRKN

PRKN-206

CAAAACATGCTATATTCAAAGAAATACACCCTTTATCTACGTTCTCTTTCTCTCCCAAAGGTAAATAATAAAATAAAAGGTAA
GTTTTGTACGATATAAGTTTCTTTATGTGGGAAATAGATGCAAGAGAAAAGAGAGGGTTTTCCATTTATTATTTTATTTTCCATT

7140

PRKN

PRKN-206

ATAATATTCTTTTTCTCTCCCAAAGGTAAACGTTTATTAACAACATCACCTATTTTTAAAAATAGGTAAACATACTATAGATGAT
TATTATAAGGAAAAAGAGAGGGTTTTCCATTTGCAAATAATTTTTGTTAGTGGATAAAAATTTTTATCCATTTGTATGATATCTACTA

7225

PRKN

PRKN-206

ATCAAAAATGGTATAGATGTGTCACCTTCTTAAGTAGAAAGTAGATTATACACATTTTTCTTTACCTTGCTTTTTTCACTCTATA
TAGTTTTTACCATATCTACACAGTGAAGAATTCATCTTTCATCTAATATGTGTA AAAAGAAATGGAACGAAAAAAGTGAGATAT

7310

PRKN

PRKN-206

GTACCTATTATATTTTTAAAGATCACTCCCTAGTCCGATATAGATATTTTTCTTACATATAAAAAATATATAGCATTATTGAATTCCT
CATGGATAATATAAAAATTTCTAGTGAGGGATCAGGCTATATCTATAAAAAGAAATGTATATTTTTATATATCGTAATAACTTAAGGA

7395

PRKN

PRKN-206

TTGTGTAGGTATAGCTTACTTTTTCTTACTGGCAAACACTAAGTTTTTCATTTTTTTACTGTAAATATTGCTACAACCTAATAGAC
AACACATCCATATCGAATGAAAAAGGAATGACCGTTTTGTGATTCAAAAGTAAAAAAATGACATTTATAACGATGTTGATTATCTG

7480

PRKN

PRKN-206

TTGTGTGCACCCGTATTTTCATATTGTTGTCAGAGTATTACTGGGATCTGCTCCCTAGAAGAGGGGTTACTGCACCAAAGGGAAA
AACACACGTGGGCATAAAAAGTATAACAACAGTCTCATAATGACCCTAGACGAGGGATCTTCTCCCAATGACGTGGTTTTCCCTTT

7565

PRKN

PRKN-206

ATGTGTATTTATTTTACTGTTTCCAAATTTCTCTCCCAGTAGTGGTGCCTTTCCATGCCCATCAGCAATTGCAAAGTGCAGTAT
TACACATAAATAAAATGACAAAAGTTTTAAAGAGAGGGTTCATCACACGCGAAAGGTACGGGTAGTCGTTAACGTTTTACGTCATA

7650

PRKN

PRKN-206

CAGGCTCTCCACTTCTCCCAACAGGGGAGCCGCAAGGCTTTTGCTTTGTTTCTAATTATATATTTGAGAAATGTTATTCTATG
GTCCGAGAGGTGAAGGAGGGGTTGTCCCTCGGCGTTCGAAAACGAAACAAAGATTAATATATAAACTCTTTACAATAAGATAC

7735

PRKN

PRKN-206

TAGTTGGCTGTATGTTTCTTTTTAATTTTAAACAAAGTTGAGCATCTTTTCATGTGTTTAGGATCCTTTGGTGTTTCTTTTTCTC
ATCAACCGACATACAAAAGAAAAATTAATAATTTGTTTCAACTCGTAGAAAAGTACACAAATCCTAGGAAACCACAAAAGAAAAAGAG

7820

PRKN

PRKN-206

AGTCATGTTGAAAACATCACCTTTTTCTTTTCAGGGACAGGTTACATATATTTTTTCAAAAATATTTTTCTGTATAGCACACTGTTG
TCAGTACAACCTTTTGTAGTGGAAAAGAAAAGTCCCTGTCCAATGTATATAATAAAAAGTTTTTATAAAAAGACATATCGTGTGACAAC

7905

PRKN

PRKN-206















ACAGCCCCTTGTAGATACAGAAAAGATTAGCAAAGTTGGGTCACCTTGTAAAGAATGTGCGTAAATTAACTT

TGTCGGGGGAACATCTATGTCTTTTCTAATCGTTTCAACCCAGTGAACATTTCTTACACGCATTTAATTGAA

3 '
7976
5 '



Feature	Location	Size		Type
PACRG	1 .. 7976	7976 bp	█ ←	gene
/note	= gene ENSG00000112530 Protein coding			
PRKN	1 .. 7976	7976 bp	█ →	gene
/note	= gene ENSG00000185345 Protein coding			
PACRG-201	1 .. 7976	7976 bp	█ ←	prim_transcript
/note	= primary transcript ENST00000337019 Protein coding			
PACRG-203	1 .. 7976	7976 bp	█ ←	prim_transcript
/note	= primary transcript ENST00000366889 Protein coding			
PRKN-201	1 .. 7976	7976 bp	█ →	prim_transcript
/note	= primary transcript ENST00000338468 Nonsense mediated decay			
PRKN-202	1 .. 7976	7976 bp	█ →	prim_transcript
/note	= primary transcript ENST00000366892			
PRKN-203	1 .. 7976	7976 bp	█ →	prim_transcript
/note	= primary transcript ENST00000366894 Nonsense mediated decay			
PRKN-204	1 .. 7976	7976 bp	█ →	prim_transcript
/note	= primary transcript ENST00000366896			
PRKN-205	1 .. 7976	7976 bp	█ →	prim_transcript
/note	= primary transcript ENST00000366897			
PRKN-206	1 .. 7976	7976 bp	█ →	prim_transcript
/note	= primary transcript ENST00000366898			
PRKN-207	1 .. 7976	7976 bp	█ →	prim_transcript
/note	= primary transcript ENST00000479615 Nonsense mediated decay			
PRKN-212	1 .. 7976	7976 bp	█ →	prim_transcript
/note	= primary transcript ENST00000673871 Nonsense mediated decay			
PRKN-213	1 .. 7976	7976 bp	█ →	prim_transcript
/note	= primary transcript ENST00000674006 protein_coding_CDS_not_defined			
PRKN-221	1 .. 7976	7976 bp	█ →	prim_transcript
/note	= primary transcript ENST00000674436 protein_coding_CDS_not_defined			
PRKN-223	1 .. 7976	7976 bp	█ →	prim_transcript
/note	= primary transcript ENST00000674501 Retained intron			
PRKN-202	3688 .. 3824	137 bp	█ →	CDS
/codon_start	= 1			
/note	= coding sequence ENSP00000355858			
/translation	= SPVLVFQCNSRHVICLDCFHLYCVTRLNDRQFVHDPQLGYSLPCV 45 amino acids = 5.2 kDa			
PRKN-204	3688 .. 3824	137 bp	█ →	CDS
/codon_start	= 1			
/note	= coding sequence ENSP00000355862			
/translation	= SPVLVFQCNSRHVICLDCFHLYCVTRLNDRQFVHDPQLGYSLPCV 45 amino acids = 5.2 kDa			
PRKN-205	3688 .. 3824	137 bp	█ →	CDS
/codon_start	= 1			
/note	= coding sequence ENSP00000355863			
/translation	= SPVLVFQCNSRHVICLDCFHLYCVTRLNDRQFVHDPQLGYSLPCV 45 amino acids = 5.2 kDa			

Feature	Location	Size			Type
✓ PRKN-206	3688 .. 3824	137 bp			CDS
/codon_start	= 1				
/note	= coding sequence ENSP00000355865				
/translation	= SPVLV FQCNSRHVICLDCFHLYCVTRLNDRQFVHDPQLGYSLPCV 45 amino acids = 5.2 kDa				
✓ Donor Template WT -> SNV	3738 .. 3837	100 bp			misc_feature
✓ gRNA Protospacer Sequence	3756 .. 3775	20 bp			misc_feature
✓ Silent SNV	3775 .. 3775	1 bp			misc_feature
/note	= WT = T Silent SNV = C				
✓ PAM	3776 .. 3778	3 bp			misc_feature
✓ SNV	3776 .. 3776	1 bp			misc_feature
/note	= WT = C SNV = T				

Primer	Length	Binding Sites	Tm	Date Added
✓ PCR Forward /sequence = accttacaatgcctggtactatggg 44% GC / 7672.1 Da	25-mer	3219 .. 3243	59°C	Mar 7, 2023
✓ Sanger Sequencing Primer /sequence = tctttgcacagagcacagtc 50% GC / 6077.0 Da	20-mer	3571 .. 3590	57°C	Mar 7, 2023
✓ Donor Template Wt -> SNV /sequence = atgctagacttacCCACACAAGGCAGGGAGTAGCCAAGTTGAGGGTCGTGAACAAACTGCCAGTCATTGAGTCTTGTCACACAGTATAAG 46% GC / 4331.2 Da	100-mer	3738 .. 3837	74°C	Mar 7, 2023
✓ gRNA Protospacer /sequence = GTGTGACAAGACTCAATGAT 40% GC / 6165.1 Da	20-mer	3756 .. 3775	54°C	Mar 7, 2023
✓ PCR Reverse /sequence = ccacggtaacaaatctagaacatgg 44% GC / 7668.1 Da	25-mer	4114 .. 4138	58°C	Mar 7, 2023