



**ASK2J00175R\_PRKN\_P437L\_D10\_AA**  
 7413 bp

5'  
3'

AAATTTTAACTTACAAACAGAAAAGCTGAGACTTGAAGCTTATTAGCGATGGCCTAAACTGTTTAAAAGTGCATCACTGTAACC  
TTTAAAAATTGAATGTTTGTCTTTTCGACTCTGAACTTCGAATAATCGCTACCGGATTTGACAAAATTTTACGTTAGTGACATTGG

85

PRKN

PRKN-206

GAAACCGACATAGCCTCTATGACCAAGGATGTTACCTGGTTGTCACCAAGGTTTCGTGGCCTGTTACATACTCAGCTGTGTTTCAG  
CTTTGGCTGTATCGGAGATACTGGTTCCTACAATGGACCAACAGTGGTTCGAAGCACCAGGACAATGTATGAGTCGACACAAAAGTC

170

PRKN

PRKN-206

GAATGCCCTTCTCCCTCAGAGAAGCTGAAATGAGAATGCGAGGAATTTCCATTTAAGCACAGGCTAAACCCTGGTACTTTCTC  
CTTACGGGAAGGAGGGAGTCTCTTCGACTTTACTCTTACGCTCCTTAAAGGTAAAATTCGTGTCCGATTTGGGACCATGAAAGAG

255

PRKN

PRKN-206

CTATAATCCACTCCAGTCTCCAGAAATTTCTTCACTTCCATCTCAAGCAGATGAAATTCGGCTCCATTCCCTGACTGAGTGTGT  
GATATTAGGTGAGGTCAGAGGTCTTTAAAGAAGTGAAGGTAGAGTTCGTCTACTTTAAGACCGAGGTAAGGGACTGACTCACACA

340

PRKN

PRKN-206

GCTTCTCCTCAAATGTGCCTTCAGGTTGTTCAAGGACTTCCACGCTCTCATTAAATCTAGTGAAGAATTGCTGGCCGGAGCCAC  
CGAAGAGGAGTTTACACGGGAAGTCCAACAAGTCCCTGAAGGTGCGAGAGTAATTTAGATCACCTTCTTAACGACCGGCCCTCGGTG

425

PRKN

PRKN-206

GATGTCGACTGCCCGGCGTAGGCTGAGCTTTTCATGGTTTGTGAGTGTCCATCTGCAGACAGAACTCACTACAAAGGAAGCCATATT  
CTACAGCTGACGGGCCGCATCCGACTCGAAAAAGTACCAAACCTCACAGGTAGACGTCTGTCTTGAAGTATGTTTCTTCGGTATAA

510

PRKN

PRKN-206

CCCTTCATGTCTATATCCACAAATCTGCGTGAAGTTTCAGCTGCTTCTGGATGCACTTACTTTTAAGCTGGCAAAGCTTTTAGA  
GGGAAGTACAGATATAGGTGTTTAGACGCACTTCAAAGTCGACGAAGGACCTACGTGAATGAAAATTCGACCGTTTCGAAAATCT

595

PRKN

PRKN-206

ATTGCGGTCCTCCATGCTCCTCCATGGCCTGGGTCTAGCTCTATGGCCTTGTGTATATTAAGCCCTAGGGAGAAAAGAAAGCTAA  
TAACGCCAGGAGGTACGAGGAGGTACCGGACCCAGATCGAGATACCGGAACACATATAATTCGGGATCCCTCTTTTCTTTTCGATT

680

PRKN

PRKN-206

TGACGTGAATATCTTCTCTCCATTTCCATTCTTACTGTACCAGGCCATTGTAATTCTAGCTTCTGTACCAAGATATCATTTAC  
ACTGCACTTATAGAAGAGAAGGGTAAAGGTAAAGAATGACATGGTCCGGTAACATTAAGATCGAAGACATGGTTCTATAGTAAATG

765

PRKN

PRKN-206

AATGCTAGTATCCAGATTCATTAAATGCTTGGTATTAATTTTTGGCATTCCGGTCTAAGTGTAGAACAACAACATGCTTCTTCT  
TTACGATCATAGGGTCTAAGTAATTTACGAACCATAATTAAAAACCGTAAGCCAGATTCACATCTTGTGTTGTTGTACGAAGAAGA

850

PRKN

PRKN-206

ATTCTCTCATTCAATAACAACAGTCAGCACAGAAGACTTCTGTGACGGAATGTGCGGGGGTTTTTCCCCACGCACCAAGCAAGCA  
TAAGAGAGTAAGTTATTGTTGTCAGTCGTGCTTCTGAAGACACTGCCTTACACGCCCCCAAAAAGGGGTGCGTGGTTTCGTTTCGT

935

PRKN

PRKN-206

ATCAGTTCTGCAGTGGACACCGGCTGAGTGTCTCTGCTCTTCAACCCTGGCGCTGTCTACCAGGAAATAGTGTCTGATCCCTCAGG  
TAGTCAAGACGTACCTGTGGCCGACTCACAGGACGAGAAGTTGGGACCGCGACAGATGGTCTTTATCACAGACTAGGGGAGTCC

1020

PRKN

PRKN-206

CTGGGGGCTCAGTCCCACAGGACTGCCACTCACCGGTCTCAAGTCTGGGCTTCCGGAAGTTCTGATCGACTGGCTTCAAGTTGAG  
GACCCCGAGTCAGGGTGTCTTGACGGTGAGTGGCCAGAGTTTACAGACCCGAAGGCCTTCAAGACTAGCTGACCGAAGTTCAACTC

1105

PRKN

PRKN-206

ATTCCCATGACTCCCTCTTTGGGTTCTGTTATTTGCTACAGTGGCTCACAGAACTCAGGGAAACACATTTACCAGTTTATTATAA  
TAAGGGTACTGAGGGAGAAACCCAAGACAATAAACGATGTACCCGAGTGTCTTGAGTCCCTTTGTGTAATGGTCAAATAATATT

1190

PRKN

PRKN-206

AGGATATTACAAAAGATACAGATGAAGAGATGCAGAGGGCGAGGTATGGGGGAAGGGTCGCGGAGCTTCCAAGCCTTCCCTGGGT  
TCCTATAATGTTTTCTATGTCTACTTCTCTACGTCTCCCGCTCCATACCCCTTCCCAGCGCCTCGAAGGTTCCGGAAGGGACCCA

1275

PRKN

PRKN-206

GCTCCGCCCATCAGAAACCTCCATGTGTTTCAGCAACCTGGAAGCTCCCCAAACCTGTCTCTG6GGCCCTCTATGGAGACTTCC  
CGAGGGCGGGTAGTCTTTGGAGGTACACAAGTCGTTGGACCTTCGAGGGGTTTGGGACAGGAGACCCCGGGAGATACCTCTGAAGG

1360

PRKN

PRKN-206

TGGGATAGGCACGATGGAAGCATGGACAGCCGTGTTGAAATGCGGTGGGACAGAAAGGCTTTGATCTCACGCTAAAAGATGGAGT  
ACCTATCCGTGCTACCTTCGTACCTGTCGGCACAACCTTACGCCACCTGTCTTTCCGAAACTAGAGTGCATTTTCTACCTCA

1445

PRKN

PRKN-206

GGGGAGACCCTGCAAGGCCTGCCGGTCTAGATTCTTCTTGGCCTCCCTGTGCAGCATTCTTCCCTCCAGGGGATGGACAGGACTC  
CCCCTCTGGGACGTTCCGGACGGCCAGATCTAAGAAGAACC GGAGGGACACGTGTAAGGAAGGAGGTCCCCTACCTGTCTCTGAG

1530

PRKN

PRKN-206

TTTCTGAAATCCGGGTCTTATAACCCACAGTCAGAACAGCTGCGGATGGTTCCAGTCTTCCCTGGGCTGGTAAAAGGAGGGCAA  
AAAGACTTTAGGCCCAGAATATTGGGTGTGAGTCTTGTGACGCTTACCAAGGTCAGGACGGGACCCGACCATTTTCTCCCGTT

1615

PRKN

PRKN-206

GGAAAGGTCGGAGGGAGAGATTCTCTTTTCTGGCGCCTGTTTCTGAGGCCTGAATTGCCCAACATTATGACAAAAGACTGTAAC  
CCTTTCCAGCCTCCCTCTCTAAGAGAAAAGACCGCGGACAAAAGACTCCGGACTTAACGGGGTTGTAATACTGTTTTCTGACATTG

1700

PRKN

PRKN-206

AAGAGCTATGGGAGTTATAAGCCAGGGACTGTGTATGAAAAACACATCTATCAGCCAGGCGCGGTGGCTCATGCCTGTAATCCCA  
TTCTCGATACCCTCAATATTCGGTCCCTGACACATACTTTTTGTGTAGATAGTCGGTCCGCGCCACCGAGTACGGACATTAGGGT

1785

PRKN

PRKN-206

GCACTTTGGGAGGCCAAGGCAGGCAGATCACGAGGTCAGGAGTTTTGAGACCAGCCTGGTCAACATGGTGAAACCCCGTCTCTACT  
CGTGAAACCCCTCCGGTTCGGTCCGTCTAGTGCTCCAGTCTCAAACCTCTGGTCGGACCAAGTTGTACCACTTTGGGGCAGAGATGA

1870

PRKN

PRKN-206

AAAAATACAAAATTTAGCCAGGCGTGGTGGCAGGTGCCTGTAATTCCAACCTACTCGAGAGGCTGAGGCAGGAGAATTGCTTGAAC  
TTTTTATGTTTTAAATCGGTCCGCACCACCGTCCACGGACATTAAGGTTGATGAGCTCTCCGACTCCGTCTCTTAACGAACTTG

1955

PRKN

PRKN-206

CCGGGAGGCAGAGGTGGCAGTGAGCCCAGATCGCGCCCTGTAATCCAGCCTGGGCGACAGAGCGAGACTCCATCTCAAAAAATA  
GGCCCTCCGTCTCCACCGTCACTCGGGTCTAGCGCGGGACATGAGGTCGGACCCGCTGTCTCGCTCTGAGGTAGAGTTTTTTTTAT

2040

PRKN

PRKN-206

AAATAAAATAAAATAAAATATATATATATATACACACACACACACACACACACACACTCTTCATACATATTTGTGTTTA  
TTTATTTTATTTTATTTTATATATATATATATATGTGTGTGTGTGTGTGTGTGTGTGTGTGTGAGAAGTATGTATAAACACAAAT

2125

PRKN

PRKN-206

TATATGCTTATATATATTTAAATATCACAATAGGAAAGTTTCTTACCCTTTCATTTAGAAATTGCTTTAATAGTTCATTAAGTTTTA  
ATATACGAATATATATAATTTATAGTGTTATCCTTTCAAAGAATGGGAAAGTAAATCTTAACGAAATTATCAAGTAATTCAAAAT

2210

PRKN

PRKN-206

ATGTATTGCTCAATAATTTTGATTGAATATATTTTACGATACATGATATAATAATGATATATTTATGATATGATAAAATATTTAT  
TACATAACGAGTTATTTAAACTAACTTATATAAAATGCTATGTACTATATTACTATATAAAATACTATACTATTTTATAAATA

2295

PRKN

PRKN-206

GATATTTTAGAGAAACAAGTGTTTATAATGTCACACCATATAACATATTATTTACATCATAAATATACAACCATGCAATATGT  
CTATAAAATCTCTTTGTTCCACAAAATATTACAGTGTGGTATATTGTATAATAAATGTAGTATTTATATGTTGGTACGTTATACA

2380

PRKN

PRKN-206

GCTGAAAATGGCACAAACCTAAGTGGAAAGTATGAAGATAAAAGTGTGTAAGTTTTCTCCTTTATTTTCCACAGATCTGTAATT  
CGACTTTTACCGTGTGTTGGATTACCTTTTCACTTCTATTTTCAACAACATTCAAAGAGGAAATAAAAGGTGTCTAGACATTAA

2465

PRKN

PRKN-206

TATGATCTTTAAAACAAGCCAGAAAGGATTAGGAAAACAGGAGATTTTGCATGTCGGCAAGTTATCTTAAAACAATGCCTATTC  
ATACTAGAAATTTTGTTCGGTCTTTTCTAATCCTTTTGTCTCTAAAACGTACAGCCGTTCAATAGAATTTTGTTTACGGATAAG

2550

PRKN

PRKN-206

CTATATATTCATAAATATTTTAAATTAGTGAAAAGTTCTCATGCCAGGTTTCTAATAATAAAAAGTGAGACAGCACCGAACCAATTA  
GATATATAAGTATTTATAAAAATTTAATCACTTTCAAGAGTACGGTCCAAAGATTATTATTTTCACTCTGTCTGCTGGCTTGGTTAAT

2635

PRKN

PRKN-206

CTTGGAAAATTTGGCAGGAAAAATCAATTAACAAGATAATTGGTAAGAGTGAGTAATGGAGCACCTTCAACGCTAGGTGGGATTC  
GAACCTTTTAAACCGTCTTTTTAGTTAATTGTTCTATTAACCATTCTCACTCATTACCTCGTGGAAAGTTGCGATCCACCCTAAG

2720

PRKN

PRKN-206

AAGCAAAGAAACTGCGTTTGCCGGGGTTTTCCAGGAAATTTGGACAGAAACAGTTCTCTGTACATCCTCATACAAATCACTTCTT  
TTCGTTTCTTTGACGCAAACGGCCCCAAAAGGTCTTTAAACCTGTCTTTGTCAAGAGACATGTAGGAGTATGTTTAGTGAAGGA

2805

PRKN

PRKN-206

CCTCCCTTCAGTTCCCCACAGCGACTGAAGCAGGGCTGTGTGCACTCCAGAACTCATGGAGTCTATGTTTAAACAAGTGAGGGA  
GGAGGGAAGTCAAGGGGGTGTCTGCTGACTTCGTCCCGACACACGTGAGGTCTTTGAGTACCTCAGATACAAATTGTTCACTCCCT

2890

PRKN

PRKN-206

GGTGAATAATTCCAAAATAAGTTCCAAGATAAGGGACTTTTCTCTTATGCTGAAAATAACCTGTTCTGTGAATGACAGGACATT  
CCACTTATTAAGGTTTTATTCAAGGTTCTATTCCCTGAAAAGGAGAATACGACTTTTTATTGGACAAGACACTTACTGTCTGTAA

2975

PRKN

PRKN-206

GGAATCACACAGACCTTGGTGAGATCATTGTCTTCACCATTTAAAAGTGCTTCACCTTGGGGAAATTCTATAGCAGAGTGATGCT  
CCTTAGTGTGTCTGGAACCACTCTAGTAACAGAAGTGGTAAATTTTACGAAAGTGAACCCCTTTAAGATATCGTCTCACTACGA

3060

PRKN

PRKN-206

CTTATCTCAAAGTGCTTTGGGAAGCAAATGAGATAATATACATAGAACACCTAGCATTATTAATTACTTCCTTTCTATCCCTCTC  
GAATAGAGTTTACGAAACCTTCGTTTACTCTATTATATGTATCTTGTGGATCGTAATAATTAATGAAGGAAAGATAGGGAGAG

3145

PRKN

PRKN-206

ATCTTAATTAATAATTTTGGATAGCATTAAAGGAACATATTCCCTATTAATAATAATATGCTGGCTGGGTGCGGTAGCTCACGCCTG  
TAGAATTAATTTTAAAACCTATCGTAATTCCTTGTATAAGGGATAATTTTATTATACGACCGACCCACGCCATCGAGTGCGGAC

3230

PRKN

PRKN-206

TAATCCCAGCACTTTGGGAGGCCGAGGCGGGAGGATGACTTGAGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGCAAAACCC  
ATTAGGGTCTGTAACCCCTCCGGCTCCGCCTCCTACTGAACTCCAGTCTTCAAACCTCTGGTCTGGACCGGTTGTACCGTTTTGGG

3315

PRKN

PRKN-206

TGTCTCTACGAAAAATTCAAAAATTAGCTGGGCATGTTGGTGGGCGCCTGTAATCCCAGCTACTCGGGAGGCTGAGGCCAGAGAA  
ACAGAGATGCTTTTTAAGTTTTTAATCGACCCGTACAACCACCCGCGGACATTAGGGTCTGATGAGCCCTCCGACTCCGGTCTCTT

3400

PRKN

PRKN-206

TCACCTTGAACCTGGGAGGTGGGGGTTGCAGTGAGCCAAGATCTCGCCACTGCACTCCAGCCTGGACGACAAGAGCAAAACTCCAT  
AGTGAACCTTGGACCCCTCCACCCCAACGTCACTCGGTTCTAGAGCGGTGACGTGAGGTCGGACCTGCTGTTCTCGTTTTGAGGTA

3485

PRKN

PRKN-206

CTCAAAAAAAAAAATAGAAATAATAATAATTACAATATGCTATCCCAGTTCCTGTTTTATGAATTTGGCCAAGCCAAGTAAGTGG  
GAGTTTTTTTTTTTATCTTTATTATTATTAATGTTATACGATAGGGTCAAGGACAAAATACTTAAACCGGTTTCGGTTCATTACC

3570

PRKN

PRKN-206

CACTATAGAAAAGAGCAAAAATAAATCAAAATATATTTAAATTATTATACATTATATTAGGTTATATCATCAAATTTTATCAATAT  
GTGATATCTTTCTCGTTTTTATTTAGTTTTATATAAATTTAATAATATGTAATATAATCCAATATAGTAGTTTAAATAGTTATA

3655

PRKN

PRKN-206

ATTTAAATATAAATATATTTTATATATATTTTAAATATAAATATATAAAAAATATATTTTATATATATTTTAAATATAAATATATAAA  
TAAATTTATATTTTATATAAATATATATAAAATTTATATTTTATATATTTTTTATATAAATATATATAAAATTTATATTTTATATATTTT

3740

PRKN

PRKN-206

AATATATTTATATATATTTTAAATATAAATATATAAAAAATATATTTTATATATATTTTAAATATAAATATATAAAAAATATATTTTATAT  
TTATATAAATATATATAAAATTTATATTTTATATATTTTTTATATAAATATATATAAAATTTATATTTTATATATTTTTTATATAAATATA

3825

PRKN

PRKN-206

ATATTTTAAATATAAATATATAAAAAATATATTTTATATATATTTTAAATATAAATATATAAAAAATATATTTTATATATATTTTAAATAT  
TATAAAATTTATATTTTATATATTTTTTATATAAATATATATAAAATTTATATTTTATATATTTTTTATATAAATATATATAAAATTTATA

3910

PRKN

PRKN-206

AAATATATAAAATATATTTTATATATATTTTAAATATAAATATATAAAAAATATATATATTTTAAATATAAATATATAAAAAATATAT  
TTTATATATTTTATATAAATATATATAAAATTTATATTTTATATATTTTTTATATATATAAAATTTATATTTTATATATTTTTTATATA

3995

PRKN

PRKN-206

ATATTTTAAATATAAATATATAAAAAATATATATATTTTAAATATAAATATATAAAAAATATATATATTTTAAATATAAATATATAAA  
TATAAAATTTATATTTTATATATTTTTTATATATATAAAATTTATATTTTATATATTTTTTATATATATAAAATTTATATTTTATATATT

4080

PRKN

PRKN-206

AAATATATATATTTTAAATATAAATATATAAAAAATATATATATTTTAAATATAAATATATAAAAAATATATATATTTTAAATATAAA  
TTTATATATATAAAATTTATATTTTATATATTTTTTATATATATAAAATTTATATTTTATATATTTTTTATATATATAAAATTTTATATT

4165

PRKN

PRKN-206

ATATATAAAAAATATATATATTTTAAATATAAATATATAAAAAATATATATATTTTAAATATAAATATATAAAAAATATATTTTATATA  
TATATATTTTATATATATAAAATTTATATTTTATATATTTTTTATATATATAAAATTTATATTTTATATATTTTTTATATAAATATAT

4250

PRKN

PRKN-206

PCR Forward

ttgtctctaa

TTTTAAATATAAATATATTAATATTTGAATATATTTAAATGA6GAATTGACCCCTATCTATGAAACATGAAGTGTGGTCTCTAA  
AAAATTTATATTTATATAAATTATAAACTTATATAAATTTACTCCTTAAC TGGGGATAGATACTTTGTACTTTCACAAACAGAGATT

4335

PRKN

PRKN-206

PCR Forward

atccccctttcaggag

ATCCCTTTTCAGGAGAATAAAGTCAGATTTACAAATAAAATTTGTTCCCGACAAAAGTGACATGCTTCAATTTCAATTCATTTCTT  
TAGGGGAAAAGTCCTCTTATTTTCAGTCTAAATGTTTATTTTAAACAAGGGCTGTTTTCACTGTACGAAGTTAAAGTAAGTAAAGAA

4420

PRKN

PRKN-206

Sanger Sequencing Primer

ctgcccttgtattgc

AATGAATATCATCACTTTAGAGCTGCCCTATTGTGCTTTATGAAGTTTTTCCCCTCAGTTAAGTTTCTCTGCCCTTGTATTGC  
TTACTTATAGTAGTGAAATCTCGACGGGATAACACGAAATACTTCAAAAAGGGGAGTCAATTCAAAGAGAGACGGGAACATAACG

4505

PRKN

PRKN-206

Sanger Sequencing Primer

ttgtg

Donor Template SNV -> Rev

a

TTGTGATTATTCGCTCAGAAAAGTGATGTCTAGGCTAGCGTGCTGGTTTGGGAATGCGTGTTTTCCAGGTA CTGCTGCGAACCCA  
AACACTAATAAGCGAGTCTTTCACTACAGATCCGATCGCACGACCAAACCTTACGCACAAAAGGTCCATGAACGACGCTTGGGT

4590

PRKN

PRKN-206

Donor Template SNV -> Rev

Donor Template SNV -> Rev

ccacacctttgttttctgcccccaacagGAGGCTGCATGCACATGAAGTGTCGCAGCCCCAGTGCAGGCTCGAGTGGTGTCTGGA  
CCACACCTTTGTTTTCTGCCCCCAACAGGAGGCTGCATGCACATGAAGTGTCGCAGCCCCAGTGCAGGCTCGAGTGGTGTCTGGA  
GGTGTGGAAACAAAAGACGGGGGTTGTCTCCGACGTACGTGTACTTCACAGCGTTCGGGGTACAGTCCGAGCTCACCACGACCT

4675

PRKN

PRKN-206

430 G C M H M 435 K C P Q P 440 Q C R L E W C W 445  
ENSE00001442933

PRKN-206

Donor Template SNV -> Rev

SNV

PAM

gRNA Protospacer Sequence

Silent SNV

TT ACGTCCGAGCTCACCACG  
gRNA Protospacer

Donor Template SNV -> Rev

ACTGTGGCTGCGAG

ACTGTGGCTGCGAGTGGAAACCGCGTCTGCATGGGGGACCACTGGTTTCGACGTGTAGCCAGGGCGGCCGGGCGCCCCATCGCCACA  
TGCACCCGACGCTCACCTTGGCGCAGACGTACCCCCTGGTGACCAAGCTGCACATCGGTCCCAGCCGGCCCGCGGGGTAGCGGTGT

4760

PRKN

PRKN-206

N C G C E W N R V C M G D H W F D V

ENSE00001442933

PRKN-206

Donor Template SNV -> Rev

TCCTGGGGGAGCATACCCAGTGTCTACCTTCATTTTCTAATTCTCTTTTCAAACACACACACACACGCGCGCGCGCGCACACACA  
AGGACCCCTCGTATGGGTCACAGATGGAAGTAAAAGATTAAGAGAAAAGTTTGTGTGTGTGTGTGCGCGCGCGCGCTGTGTGT

4845

PRKN

PRKN-206

CTCTTCAAGTTTTTTTTCAAAGTCCAACCTACAGCCAAATTGCAGAAGAAACTCCTGGATCCCTTTCACTATGTCCATGAAAAACAG  
GAGAAGTTCAAAAAAAGTTTCAGGTTGATGTCGGTTTAAACGTCTTCTTTGAGGACCTAGGGAAAAGTGATACAGGTACTTTTTTGTCT

4930

PRKN

PRKN-206

CAGAGTAAAATTACAGAAGAAGCTCCTGAATCCCTTTTCAGTTTGTCCACACAAGACAGCAGAGCCATCTGCGACACCACCAACAG  
GTCTCATTTTAATGTCTTCTTCGAGGACTTAGGGAAAAGTCAAACAGGTGTGTTCTGTCTCGGTAGACGCTGTGGTGGTTGTC

5015

PRKN

PRKN-206

GCGTTCTCAGCCTCCGGATGACACAAATACCAGAGCACAGATTCAAGTGCAATCCATGTATCTGTATGGGTCATTCTCACCTGAA  
CGCAAGAGTCGGAGGCCTACTGTGTTTATGGTCTCGTGTCTAAGTTTACGTTAGGTACATAGACATACCCAGTAAGAGTGGACTT

5100

PRKN

PRKN-206

TTCGAGACAGGCAGAATCAGTAGCTGGAGAGAGAGTTCTCACATTTAATATCTCGCCTTTTACCTTCAGTAAACACCATGAAGAT  
AAGCTCTGTCCGTCTTAGTCATCGACCTCTCTCTCAAGAGTGTAAATTATAGGACGGAAAATGGAAGTCATTTGTGGTACTTCTA

5185

PRKN

PRKN-206

GCCATTGACAAGGTGTTTCTCTGTAAAATGAACTGCAGTGGGTTCTCCAACTAGATTCATGGCTTTAACAGTAATGTTCTTATT  
CGGTAACGTGTTCCACAAAGAGACATTTTACTTGACGTACCCAAAGAGGTTTGTATCTAAGTACCGAAAATTGTCATTACAAGAATAA

5270

PRKN

PRKN-206

GACATTTTACTTGACGTCACCCAAG

PCR Reverse

TAAATTTTTCAGAAAGCATCTATTCCCAAAGAACCCAGGCAATAGTCAAAAACATTTGTTTATCCTTAAGAATTCATCTATATA  
ATTTAAAAGTCTTTCGTAGATAAGGGTTTCTTGGGGTCCGTTATCAGTTTTTGTAAACAAATAGGAATTCCTAAGGTAGATATAT

5355

PRKN

PRKN-206



AATCGCATTAAATGAAATACCAACTATGCGTAAATCAACTTGTACACAAAGTGAGAAATTATGAAAGTTAATTTGAATGTTGAATGT  
TTAGCGTAATTACTTTTATGGTTGATACGCATTTAGTTGAACAGTGTTTCACTCTTTAATACTTTCAATTAAGCTTACAACCTTACA

5440

PRKN

PRKN-206

TTGAATTACAGGGAAGAAATCAAGTTAATGTACTTTTCATTCCCTTTTCATGATTTGCAACTTTAGAAAGAAATTTGTTTTCTGAAA  
AACTTAATGTCCCTTCTTTAGTTCAATTACATGAAAGTAAGGGAAAGTACTAAACGTTGAAATCTTTCTTTAACAAAAAGACTTT

5525

PRKN

PRKN-206

GTATCACCAAAAAATCTATAGTTTGATTCTGAGTATTCATTTTGCACCTTGGAGATTTTGTCTAATACATTTGGCTCCACTGTAAA  
CATAGTGGTTTTTTAGATATCAAACCTAAGACTCATAAGTAAACGTTGAACCTCTAAAACGATTATGTAAACCGAGGTGACATTT

5610

PRKN

PRKN-206

TTTAATAGATAAAGTGCCTATAAAGGAAACACGTTTAGAAATGATTTTCAAATGATATTCAATCTTAACAAAAGTGAACATTATT  
AAATTATCTATTTTACGGATATTTCCCTTTGTGCAAATCTTTACTAAAGTTTTACTATAAGTTAGAATTGTTTTCACTTGTAATAA

5695

PRKN

PRKN-206

AAATCAGAATCTTTAAAGAGGAGCCTTTCCAGAACTACCAAAATGAAGACACGCCGACTCTCTCCATCAGAAGGGTTTATACCC  
TTTAGTCTTAGAAATTTCTCCTCGGAAAGGTCTTGATGGTTTTACTTCTGTGCGGGCTGAGAGAGGTAGTCTTCCCAAATATGGG

5780

PRKN

PRKN-206

CTTTGGCACACCTCTCTGTCCAATCTGCAAGTCCCAGGGAGCTCTGCATACCAGGGGTTCCCCAGGAGAGACCTTCTCTTAGGA  
GAAACCGTGTGGGAGAGACAGGTTAGACGTTCAAGGTCCTCGAGACGTATGGTCCCAAGGGGTCTCTCTGGAAGAGAATCCT

5865

PRKN

PRKN-206

CAGTAAACTCACTAGAATATTCCTTATGTTGACATGGATTGGATTTCAAGTTCAATCAAACCTTTAGCTTTTTTTTTCAGCCATTCA  
GTCATTTGAGTGATCTTATAAGGAATACAACCTGTACCTAACCTAAAGTCAAGTTAGTTTGAAGTCGAAAAAAGTCGGTAAGT

5950

PRKN

PRKN-206

CAACACAATCAAAAAGATTAACAACACTGCATGCGGCAAAACCGCATGCTCTTACCCACACTACGCAGAAGAGAAAAGTACAACCACT  
GTTGTGTTAGTTTTCTAATTGTTGTGACGTACGCCGTTTGGCGTACGAGAATGGGTGTGATGCGTCTTCTCTTTTCATGTTGGTGA

6035

PRKN

PRKN-206

ATCTTTTGTCTACCTGTATTGTCTGACTTCTCAGGAAGATCGTGAACATAACTGAGGGCATGAGTCTCACTAGCACATGGAGGC  
TAGAAAAAAGATGGACATAACAGACTGAAGAGTCTTCTAGCACTTGTATTGACTCCCCTACTCAGAGTGATCGTGTACCTCCG

6120

PRKN

PRKN-206

CCTTTTGGATTTAGAGACTGTAAATTATTAATCGGCAACAGGGCTTCTCTTTTTAGATGTAGCACTGAAATCCTTGCTGGAGGG  
GGAAAAACCTAAATCTCTGACATTTAATAATTTAGCCGTTGTCCCAGAGAGAAAAATCTACATCGTGACTTTAGGAACGACCTCCC

6205

PRKN

PRKN-206

AAGAGAGGGGGATGAACTCAAGTTTTCCACATCCTGGGACACCTGTCCCTCTTTTCCTAACTGCCTAAGATAACCCATTTCTTCCA  
TTCTCTCCCTACTTGAGTTCAAAAAGGTGTAGGACCTGTGGACAGGGGAGAAAAGGATTGACGGATTCTATTGGGTAAAGAAGGT

6290

PRKN

PRKN-206

ACCATCTGAGGACAGTCCCGTTCGTCTCAGAGGCCCTGCACCGGGGAGAGACTGGGCTCTGCAGCAGCCACATCAGCATTACAGC  
TGGTAGACTCCTGTCAAGGCAGCAGAGTCTCCGGGACGTGGCCCTCTCTGACCCGAGACGTCGTCGGTGTAGTCGTAAGTGTCTG

6375

PRKN

PRKN-206

TTCATGTGGCTTCACTGTCTGAAAATCTACCGACTCCAACATGGCCCCACGGTGACAACAGACCTGTGACAGGAAGCCCAAAGCT  
AAGTACACCGAAGTGACAGACTTTTAGATGGCTGAGGTTGTACCGGGGTGCCACTGTTGTCTGGACACTGTCTTCGGGTTTCGA

6460

PRKN

PRKN-206

CACATAGAAATGGTGGACAGATCAAAGTCTCTATAGTAAGGGAAAAAAGAGAGGTGGCAGGCATGAGCCCCCTGCACCCAGTGG  
GTGTATCTTTACCACCTGTCTAGTTTCAGAGATATCATTCCCTTTTTTCTCTCCACCGTCCGTACTIONCGGGGACGTGGGTCACC

6545

PRKN

PRKN-206

CTCGTGTCCATACTGAGTCCAGACCCTGATCAAGGCCTGACTTAGTGTCACTGGCAGTCCCACTAAATTACACTTCCTTACACTG  
GAGCACAGGTATGACTCAGGTCTGGGACTAGTTCGGACTGAATCACAGTGACCGTCAGGGTGATTTAATGTGAAGGAATGTGAC

6630

PRKN

PRKN-206

GCCCGATGCGACAAATCAGGTGGCTCCCTTCTGTACGTGGAGCACACAGTGTTCATCATCCATAGCTTTCTTCTGATGGT  
CGGGCTACGCTGTTTAGTCCACCGAGGGAAAGACAGTGACCTCGTGTGTCAAAAAGGTAGTAGGTATCGAAAAGAAGGACTACCA

6715

PRKN

PRKN-206

GTTTGCATTATTGCGCCTTCCCAATCTGCATGCTGCGTTGGGCTTGCGGTGCCTGAACAAGGTTTGTCTCCCATGAGCTCAGGCAC  
CAAACGTAATAACGCGGAAGGGTTAGACGTACGACGCAACCCGAACGCCACGGACTTGTTCAAACGAGGGTACTCGAGTCCGTG

6800

PRKN

PRKN-206

CCTAGGATCCCCTGTTAGACTATTAGGCTGTCCAGCATGGTCTCCTTTCCCTTCTTGGTGGTGGTCTTTTCCCTTTCCAGAATAG  
GGATCCTAGGGGACAATCTGATAATCCGACAGGTGCTACCAGAGGAAAGGGAAGAACCACCAGAAAAGGGAAAGGTCTTATC

6885

PRKN

PRKN-206

AACAGTGATTCTTAAAATAAGTTAGAGCAGGCCGGGCGCGGTGGCTCATGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGTGGG  
TTGTCACTAAGAATTTTATTCAATCTCGTCCGGGCCGCGCCACCGAGTACGGACATTAGGGTCTGTGAAACCCTCCGGCTCCACCC

6970

PRKN

PRKN-206

TGGATCACGAGGTCAAGGAGTTCAAGACCAGCCTGGCCAAGATGATGAAACCCCGTCTCTATTAAAAATACAAAAATTAGCTGGGC  
ACCTAGTGCTCCAGTCTCAAGTTCTGGTCCGACCGGTTCTACTACTTTGGGGCAGAGATAATTTTTATGTTTTTAATCGACCCG

7055

PRKN

PRKN-206

GTGGTGGCAGGCACCTGTAATCCCAGCTTCCTGGGAGGCTGAGGCAGGAGAATCACTTGAACCCGGGGGGCAGAGGTTGCAGTGA  
CACCACCGTCCGTGGACATTAGGGTCGAAGGACCCCTCCGACTCCGTCCTCTTAGTGAACTTGGGCCCCCCCGTCTCCAACGTCCT

7140

PRKN

PRKN-206

GCCGAGATCACGCCACTGAACTCCAGCCTGGGCAACAGAGTGAGACTCTGTCTCAAAAAAAAAAAAAAAAAACAAAAACAAAAAGC  
CGGCTCTAGTGCGGTGACTTGAGGTCGGACCCGTTGTCTCACTCTGAGACAGAGTTTTTTTTTTTTTTTTTGTTTTTGTTTTTTCG

7225

PRKN

PRKN-206

AAGATCATCCACTACACATGAACATGAATCACAGTATTATTTGCACAGGAAGGGTGTAAACAAAATATGAATGTATCAAAAAATAG  
TTCTAGTAGGTGATGTGTACTTGTACTTAGTGTATAATAAACGTGTCCTTCCCACATTGTTTTATACTTACATAGTTTTTTATC

7310

PRKN

PRKN-206

AAATAAAGTCTTTGCAGAAAAAGTCTGTTTTCTCTGAAGTGTGTTGAGATTATCTGACAACCTCTAAGATTGTAATTTAAATTGTC  
TTTATTTTCAGAAACGTCTTTTTTCAGACAAAAAGAGACTTCACACAACCTCTAATAGACTGTTGAGATTCTAACATGAATTTAACAG

7395

PRKN

PRKN-206

AATAAAGCATCAAAAAGAG  
TTATTTTCGTTAGTTTTCTC

3'

7413

5'

PRKN

PRKN-206

Feature	Location	Size			Type
<b>PACRG</b>	1 .. 7413	7413 bp		←	gene
/note	= gene <a href="#">ENSG00000112530</a> Protein coding				
<b>PRKN</b>	1 .. 7413	7413 bp		→	gene
/note	= gene <a href="#">ENSG00000185345</a> Protein coding				
<b>PACRG-201</b>	1 .. 7413	7413 bp		←	prim_transcript
/note	= primary transcript <a href="#">ENST00000337019</a> Protein coding				
<b>PACRG-203</b>	1 .. 7413	7413 bp		←	prim_transcript
/note	= primary transcript <a href="#">ENST00000366889</a> Protein coding				
<b>PRKN-206</b>	1 .. 7413	7413 bp		→	prim_transcript
/note	= primary transcript <a href="#">ENST00000366898</a>				
<b>PRKN-212</b>	1 .. 7223	7223 bp		→	prim_transcript
/note	= primary transcript <a href="#">ENST00000673871</a> Nonsense mediated decay				
<b>PRKN-213</b>	1 .. 7223	7223 bp		→	prim_transcript
/note	= primary transcript <a href="#">ENST00000674006</a> protein_coding_CDS_not_defined				
<b>PRKN-221</b>	1 .. 7223	7223 bp		→	prim_transcript
/note	= primary transcript <a href="#">ENST00000674436</a> protein_coding_CDS_not_defined				
<b>PRKN-204</b>	1 .. 6191	6191 bp		→	prim_transcript
/note	= primary transcript <a href="#">ENST00000366896</a>				
<b>PRKN-205</b>	1 .. 6191	6191 bp		→	prim_transcript
/note	= primary transcript <a href="#">ENST00000366897</a>				
<b>PRKN-201</b>	1 .. 4731	4731 bp		→	prim_transcript
/note	= primary transcript <a href="#">ENST00000338468</a> Nonsense mediated decay				
<b>PRKN-203</b>	1 .. 4731	4731 bp		→	prim_transcript
/note	= primary transcript <a href="#">ENST00000366894</a> Nonsense mediated decay				
<b>PRKN-207</b>	1 .. 4731	4731 bp		→	prim_transcript
/note	= primary transcript <a href="#">ENST00000479615</a> Nonsense mediated decay				
<b>PRKN-208</b>	1 .. 4731	4731 bp		→	prim_transcript
/note	= primary transcript <a href="#">ENST00000610470</a>				
	1 .. 1151	1151 bp		←	gene
/note	= gene <a href="#">ENSG00000286498</a> lncRNA				
	1 .. 1151	1151 bp		←	prim_transcript
/note	= primary transcript <a href="#">ENST00000660049</a> lncRNA				
<b>Donor Template SNV -&gt; Rev</b>	4590 .. 4689	100 bp		⇌	misc_feature
<b>PRKN-204</b>	4619 .. 4731	113 bp		→	CDS
/codon_start	= 1				
/note	= coding sequence <a href="#">ENSP00000355862</a>				
/translation	= GCMHMKCPQPQCRLEWCWNCGEWNRVCMGDHWFVDV* 36 amino acids = 4.4 kDa				
<b>PRKN-205</b>	4619 .. 4731	113 bp		→	CDS
/codon_start	= 1				
/note	= coding sequence <a href="#">ENSP00000355863</a>				
/translation	= GCMHMKCPQPQCRLEWCWNCGEWNRVCMGDHWFVDV* 36 amino acids = 4.4 kDa				

Feature	Location	Size		±	Type
✓ <b>PRKN-206</b>	4619 .. 4731	113 bp	■	→	CDS
/codon_start	= 1				
/note	= coding sequence <a href="#">ENSP00000355865</a>				
/translation	= GCMHMKCPQPQCRLEWCWNCGCEWNRVCMGDHWFDV*				
	36 amino acids = 4.4 kDa				
<b>PRKN-208</b>	4619 .. 4731	113 bp	■	→	CDS
/codon_start	= 1				
/note	= coding sequence <a href="#">ENSP00000483773</a>				
/translation	= GCMHMKCPQPQCRLEWCWNCGCEWNRVCMGDHWFDV*				
	36 amino acids = 4.4 kDa				
✓ <b>SNV</b>	4643 .. 4643	1 bp	■	⊢	misc_feature
/note	= SNV = T Rev = C				
✓ <b>PAM</b>	4649 .. 4651	3 bp	■	⊢	misc_feature
✓ <b>gRNA Protospacer Sequence</b>	4652 .. 4671	20 bp	■	⊢	misc_feature
✓ <b>Silent SNV</b>	4653 .. 4653	1 bp	■	⊢	misc_feature
/note	= Silent SNV = A Rev = G				

Primer	Length	Binding Sites	Tm	Date Added
✓ <b>PCR Forward</b> /sequence = ttgtctctaaatcccctttcaggag 44% GC / 7583.0 Da	25-mer	4326 .. 4350	58°C	Mar 7, 2023
✓ <b>Sanger Sequencing Primer</b> /sequence = ctgcccttgattgcttg 50% GC / 6081.0 Da	20-mer	4491 .. 4510	57°C	Mar 7, 2023
✓ <b>Donor Template SNV -&gt; Rev</b> /sequence = accacacctttgtttctgcccccaacagGAGGCTGCATGCACATGAAGTGTCCGCAGCCCCAGTGCAGGCTCGAGTGGTGTGGAACTGTGGC 50% GC / 30,828.9 Da	100-mer	4590 .. 4689	83°C	Mar 7, 2023
✓ <b>gRNA Protospacer</b> /sequence = GCACCACTCGAGCCTGCATT 60% GC / 6038.0 Da	20-mer	4654 .. 4671	62°C	Mar 7, 2023
✓ <b>PCR Reverse</b> /sequence = GAACCCACTGCAGTTCATTTTACAG 44% GC / 7601.0 Da	25-mer	5206 .. 5230	58°C	Mar 7, 2023