

TTTTTCTATTTGGTTTTACTAAATTTATTTTCAGATTTTCTACTCTCTGTGACTTTGATGGACATATATTGTTACTATTT

AAAAAAGATAAACCAAAATGATTTAAATAAAGTCTAAAAGATGAGAGACTGAAACTACCTGTATATAACAATGATAAA

720

LRRK2

LRRK2-201

LRRK2-201

AGGGAAAAATAAATAGTAATATTTGGCATTAAATATGCTGTGTGTCATTTGCCTTTTCATTTAATGAATGTGTTTCTGTGGT

TCCCTTTTATTTATCATTATAAACCGTAATTATACGACACACAGTAAACGGAAAAGTAAATTACTTACACAAAAGACACCA

800

LRRK2

LRRK2-201

LRRK2-201

GCCACTGTAGAGATTTCTCATTCTTCTTAGCCAGACTAATGTTGAGAGCGGCTTCTCCTCCTTCTGTTTCTTTTCAGTGG

CGGTGACATCTCTAAAGAGTAAGAAGAATCGGTCTGATTACAACCTCTCGCCGAAGAGGAGGAAGACAAAAGAAAAGTCACC

880

LRRK2

LRRK2-201

LRRK2-201

AGTAGACTCTAAAAGAAAAATAAGTATTGCTATTTGGTCTCTGGTTACCAATTACACAATCTAAAAGAAATACAGCACAGTA

TCATCTGAGATTTTCTTTTATTCATAACGATAAACAGAGACCAATGGTTAATGTGTTAGATTTCTTTATGTCGTGTCAT

960

LRRK2

LRRK2-201

LRRK2-201

TAATAACTTCTCACACTGTATTTTCATATAGCAACTAGTTAACATATGCCTCTTACATCTTAAAGCATTATAGCTACTGAC

ATTATTGAAGAGTGTGACATAAAGTATATCGTTGATCAATTGTATACGGAGAATGTAGAATTTTCGTAATATCGATGACTG

1040

LRRK2

LRRK2-201

LRRK2-201

ATCATGTGAAATTAATAACTTCTATTTTGGCCATTAGGATGAGTAATCTACTCACCTTGATCAGTTTTGAAAGCACCAAA

TAGTACACTTTAATGATTGAAGATAAACCGGTAATCCTACTCATTAGATGAGTGGAAGTACTGCAAAACTTTTCGTGGTTT

1120

LRRK2

LRRK2-201

LRRK2-201

ACTTCTCAAGTATCACTGTTTCTGGTCTTTACACTTTAAGCACTTTAAATATCTTTGGTAATGGATTTTATCCTCCTTTT

TGAAGAGTTCATAGTGACAAAAGACCAGAAATGTGAAATTCGTGAAATTTATAGAAACCATTACCTAAAATAGGAGGAAAA

1200

LRRK2

LRRK2-201

LRRK2-201

TGTTCCCTTTTCAGCACATCGGTCTTATTACTTTTCTCATAAAATCCTTTGCTCCCTTTTCCACAGTTACTGTATTAACGTT
ACAAGGGAAAGTCGTGTAGCCAGAATAATGAAAGAGTATTTTAGGAAACGAGGGAAAAAGGTGTCAATGACATAATTGCAA

1280

LRRK2

LRRK2-201

LRRK2-201

GCAGACCTCAGCTCTGTCATCACCTCTCAACTTGACTGTAATATCCACCAAGGCAGAGACCATGGCTGTGTTCACTCACT
CGTCTGGAGTCGAGACAGTAGTGGAGAGTTGAACTGACATTATAGGTGGTTCCGTCTCTGGTACCGACACAAGTGAGTGA

1360

LRRK2

LRRK2-201

LRRK2-201

ATTCAAATCTTGGCACCCAACACAGTGCCTGGCATAACAATTAATAGTTGTTTAATTACCAGTGATTTATACTTACTCATT
TAAGTTTAGAACCCTGGGTTGTGTCACGGACCGTATGTTAATTATCAACAAATTAATGGTCACTAAATATGAATGAGTAA

1440

LRRK2

LRRK2-201

LRRK2-201

CTCTTCTGCCTAAAAATCTCTTAAATTTATATTTAACTTCATCTGTTTTTATGAGGAAGGATTTTGTCTTCTGAACTCCTG
GAGAAGACGGATTTTAGAGAATTTAAATATAAATTGAAGTAGACAAAAATACTCCTTCTTAAAAACAAAAGACTTGAGGAC

1520

LRRK2

LRRK2-201

LRRK2-201

AGCTTGATTTTCATTTTAAAGGAGTTTGTATCTTTTGTGCTAATTGTGGCTACCCCTTCATCCTACCCAATTATTTTCTC
TCGAACTAAAGTAAAAATTTCTCAAACAATAGAAAAACACGATTAACACCGATGGGAAGTAGGATGGGTTAATAAAAAGAG

1600

LRRK2

LRRK2-201

LRRK2-201

TCTTGAAACTGGAAAAGATGGTCATATAAAAAATTGGTTTCAGTTCTTACTAAACATTTAGTAGAACTAGCTTTTCAGTGTAT
AGAACTTTGACCTTTTCTACCAGTATATTTTAAACCAAGTCAAGAATGATTTGTAAATCATCTTGATCGAAAAGTCACATA

1680

LRRK2

LRRK2-201

LRRK2-201

TATACTGTATTATCTAACTAAATATTTTAAATATTTAATATTTAATTTAATATATAACTAAATATTTTAAACATGTTTA
ATATGACATAATAGATTGATTTATAAAAAATTATAAATTATAAATTAAATTATATATTGATTTATAAAAAATTTGTACAAAT

1760

LRRK2

LRRK2-201

LRRK2-201

ACATTTTCAGAAAAGACAGAAAAGACCTAGAGCAGATTAGAAATTGTAGGCATCATTTGCTTTTTGAAGAAAAGACATTTTT
TGTA AAAAGTCTTTTCTGTCTTTCTGGATCTCGTCTAATCTTTAACATCCGTAGTAAACGAAAAACTTCTTTCTGTAAAAA

1840

LRRK2

LRRK2-201

LRRK2-201

TCAAATAGTGGTGCATTCTTAAGAAATAAATCAAGAAAGGTAATGTTGCTTTTTGGTCATATCATCAGGAATGTTGGTCA
AGTTTATCACCACGTAAGAATTCTTTATTTAGTTCTTTCCATTACAACGAAAAACCAGTATAGTAGTCCTTACAACCACT

1920

LRRK2

LRRK2-201

LRRK2-201

GATTCTTATTAGTTACAGGAATGAATTGATCACTACTCTGATGTA AAAATCACTTATGATTTAGTCTTTTTCTCTAATTT
CTAAGAATAATCAATGTCTTACTTAACTAGTGATGAGACTACATTTAAGTGAATACTAAATCAGAAAAAGAGATTTAA

2000

LRRK2

LRRK2-201

LRRK2-201

GAAACTGTGGCAACATTTTAAACATATTTCAAAAATATATCTTTCTCTATCCATTATATTTTTGATAACACTTTGACTCTAC
CTTTGACACCGTTGTAAAATTGTATAAAGTTTTATATAGAAAGAGATAGGTAATATAAAAACTATTGTGAAACTGAGATG

2080

LRRK2

LRRK2-201

LRRK2-201

TATTAGTTTAAAGGTGGTTTTTTAGCTACCTAAACACTTCTATTTTCATTCAGGTTTTACATTAAGATCATTAGGAATGAA
ATAATCAAATTTCCACCAAAAAATCGATGGATTTGTGAAGATAAAGTAAGTCCAAAATGTAATTTCTAGTAATCCTTACTT

2160

LRRK2

LRRK2-201

LRRK2-201

AGCTAACATCTGCTGATAGTATAATAGTTTATATTTATTTATGATGTTATGTGATCTCACTATCCATATATACTATTATA
TCGATTGTAGACGACTATCATATTATCAAATATAAATAAATACTACAATACTAGAGTGATAGGTATATATGATAATAT

2240

LRRK2

LRRK2-201

LRRK2-201

TGCATATGTGATATACATGAATATATAGCTATACATCATATATACCATATATGAATATATACACACACATATATAATGTA
ACGTATACACTATATGTACTTATATATCGATATGTAGTATATATGGTATATACTTATATATGTGTGTGTATATATTACAT

2320

LRRK2

LRRK2-201

LRRK2-201

ACTAATATGACCCTATTATCAAGCTTTAACAGTATACATATATCTCTACCTTGTCTTCTATGTCATATGGACTTTGTGAAA
TGATTATACTGGGATAAATAGTTTCGAAATTGTCATATGTATATAGAGATGGAACAAAGATACAGTATACCTGAAACACTTT

2400

LRRK2

LRRK2-201

LRRK2-201

TTTTGAACTTTATAATTTATAGGGTTTTCTTTCTTTCTTTCTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGAGACTGAGTTTCACTCT
AAAACTTGAAATATTAATATCCCAAAAAGAAAAGAAAAGAAAAGAAAAAAAAAAAAAAAAAAAACTCTGACTCAAAGTGAGA

2480

LRRK2

LRRK2-201

LRRK2-201

TGTCACCCAGGCTGGAGTGCAGTGGCCTGATCTTGGCTCACTGCAACCTCTGCCTCTTGGCTTCAGGCGATTCTCCTGCC
ACAGTGGGTCCGACCTCACGTCACCGGACTAGAACCGAGTGACGTTGGAGACGGAGAACCGAAGTCCGCTAAGAGGACGG

2560

LRRK2

LRRK2-201

LRRK2-201

TCAACCTCCCAAGTAGCTGGAATTACAGGCACCTGCCACTGTTCCCGGCTACTTTTTGGATTTTTAATAGAGACGGGGTT
AGTTGGAGGGTTCATCGACCTTAATGTCCGTGGACGGTGACAAGGGCCGATGAAAAACCTAAAAATTATCTCTGCCCCAA

2640

LRRK2

LRRK2-201

LRRK2-201

TCACTATATTGGCCAGGCTGGTCTCAAACCTCCTGACCTCATGATCCGCCACCTCGGCCCTCCCAAAATGCAGGGATTACA
AGTGATATAACCGGTCCGACCAGAGTTTGAGGACTGGAGTACTAGGCGGGTGGAGCCGGAGGGTTTTACGTCCCTAATGT

2720

LRRK2

LRRK2-201

LRRK2-201

GGTGCGAGCCACCGCACCTGGCGTATAATTTGTAGGGTTTTTCATACTATTTAAAGACATTAGAATATGTATACATGTAT
CCACGCTCGGTGGCGTGGACCGCATATTAACATCCCAAAAAGTATGATAAATTTCTGTAATCTTATACATATGTACATA

2800

LRRK2

LRRK2-201

LRRK2-201

GTATATGTGTGTATATATAGAGGTATATATATATTGCATATCGTATTCTAATTAGTATTGCAAACATATTTTGGCCTTTT
CATATACACACATATATATCTCCATATATATATAACGTATAGCATAAGATTAATCATAACGTTTGTATAAAACCGGAAAA

2880

LRRK2

LRRK2-201

LRRK2-201

GATTATTTCTGGTGATAGTGTAACATGTTTTCTTTGGTGATTTTACCAAACATTATCAACTACCCTAAAATCTCTAGCAA
CTAATAAAGACCACTATCACATTGTACAAAAGAAACCACTAAAATGGTTTGTAAATAGTTGATGGGATTTTAGAGATCGTT

2960

LRRK2

LRRK2-201

LRRK2-201

AATATATGCATTAACAGTACTCTGAAAGACATGTACATTATTAGTTATATGAGATATGCACTCTTCTGGATACTATATTT
TTATATACGTAATTGTCATGAGACTTTCTGTACATGTAATAATCAATATACTCTATACGTGAGAAGACCTATGATATAAA

3040

LRRK2

LRRK2-201

LRRK2-201

TAGAATAGTGTGACATGTAAAAGAACTCACCTAAATCTCAAGTATACTTTTTAAGCAGTTTATTATTTTATTTTATCTTT
ATCTTATCACACTGTACATTTTCTTGAGTGGATTTAGAGTTCATATGAAAATTCGTCAAATAATAAAAATAAAAATAGAAA

3120

LRRK2

LRRK2-201

LRRK2-201

CAAATACTAGGTTTCTTCAACAGCGATTA AAAAAGGCTGTGCCTTATAACCGAATGAAACTTATGATTGTGGGAAATACT
GTTTATGATCCAAAGAAGTTGTCGCTAATTTTTCCGACACGGAATATTGGCTTACTTTGAATACTAACACCCTTTATGA

3200

LRRK2

LRRK2-201

F L Q Q R L K K A V P Y N R M K L M I V G N T

ENSE00003496760

LRRK2-201

GGGAGTGGTAAAACACCTTATTGCAGCAATTAATGAAAACCAAGAAATCAGATCTTGGAAATGCAAAGTGCCACAGTTGG
CCCTCACCATTTTGGTGAATAACGTCGTTAATTACTTTTGGTTCTTTAGTCTAGAACCTTACGTTTCACGGTGTCAACC

3280

LRRK2

LRRK2-201

G S G K T T L L Q Q L M K T K K S D L G M Q S A T V G

ENSE00003496760

LRRK2-201

CATAGATGTGAAAGACTGGCCTATCCAAATAAGAGACAAAAGAAAGAGAGATCTCGTCTAAATGTGTGGGATTTTGCAG
GTATCTACACTTTTCTGACCGGATAGGTTTATTCTCTGTTTTCTTTCTCTCTAGAGCAGGATTTACACACCCTAAAACGTC

3360

LRRK2

LRRK2-201

I D V K D W P I Q I R D K R K R D L V L N V W D F A

ENSE00003496760

LRRK2-201

GTATTTCTTTCTATAGAATTTTAAAATTCACTTTTACCATTTGTTTGGAAACAGGGATTCAAAAACCTGAGCTTTTCTGTTCT
CATAAAGAAAGATATCTTAAAATTTAAGTGAAAATGGTAAACAAACCTTGTCCCTAAGTTTTTACTCGAAAGACAAGA

3440

LRRK2

LRRK2-201

LRRK2-201

AATATCCAGAAACCTGGTAGACTGTATGGAATTATTCCAAAGCCCTTCATTTCTCCTAATTTTACCCTTGCCTCCAGAAAT
TTATAGGTCTTTGGACCATCTGACATACCTTAATAAGGTTTTCGGGAAGTAAAGAGGATTAAAAATGGGAACGGAGGTCTTA

3520

LRRK2

LRRK2-201

LRRK2-201

GGAGAAGAACATGGAGGGATATGTTAGGAACAATTTGGTGCTAGGTACTTTGATCGGTTGCTGACAAATATGCTAAAAGT
CCTCTTCTTGACCTCCCTATAACAATCCTTGTTAAACCACGATCCATGAAACTAGCCAACGACTGTTTATACGATTTTCA

3600

LRRK2

LRRK2-201

LRRK2-201

GGTCAATCCTAGTAAAAACCCAGAATAGTTTCTCTAAACATGGTCTGTTGTTTTTCTCTTATTAGTATGCTAAATAATAAA
CCAGTTAGGATCATTTTTGGGTCTTATCAAGAGATTTGTACCAGACAACAAAAAGAGAATAATCATACGATTTATTATTT

3680

LRRK2

LRRK2-201

LRRK2-201

TAGTATTATTCTCCAGATTTTTTTTTTAAAAAAGGATTCTTGCCTGTCGTTTGAAAGATTAATAAATTTGTCTCTAATC
ATCATAATAAGAGGGTCTAAAAAATTTTTTCTAAGAACGGACAGCAAACCTTTCTAATTTTTTTAAACAGAGATTAG

3760

LRRK2

LRRK2-201

LRRK2-201

TTTATTTAGGTCGTGAGGAATTCATAGTACTCATCCCATTTTATGACGCAGCGAGCATTGTACCTTGCTGTCTATGAC
AAATAAATCCAGCACTCCTTAAGATATCATGAGTAGGGGTAAAATACTGCGTCGCTCGTAACATGGAACGACAGATACTG

3840

LRRK2

LRRK2-201

G R E F Y S T H P H F M T Q R A L Y L A V Y D

ENSE00003509533

LRRK2-201

CTCAGCAAGGGACAGGCTGAAGTTGATGCCATGAAGCCTTGGCTCTTCAATATAAAGGTGATTTGTTCTGATCATTTGAA
GAGTCGTTCCCTGTCCGACTTCAACTACGGTACTTCGGAACCGAGAAGTTATATTTCCACTAAACAAGACTAGTAAACTT

3920

LRRK2

LRRK2-201

L S K G Q A E V D A M K P W L F N I K

ENSE00003509533

LRRK2-201

AATAGAAAATAATTCATGTGTCTGTGTGCGTGTGTGTGTGTGTGTGTAAGTTAATTTATTTTGGGCAAACAATTGCTTCA
TTATCTTTTATTAAGTACACAGACACACGCACACACACACACACACATTCAATTAATAAAAACCCGTTTGTTAACGAAGT

4000

LRRK2

LRRK2-201

LRRK2-201

GTCTCTTTAAATACTTTCTTAAAAGAAGCACTAAAATTTTGAATTGGGAAACTTTCCGAGTAATGAAGTCATAACATGAA
CAGAGAAATTTATGAAAGAATTTTCTTCGTGATTTTAAAACCTTAACCCTTTGAAAGGCTCATTACTTCAGTATTGTA

4080

LRRK2

LRRK2-201

LRRK2-201

AATTGTATGTTCCATGTTGGTGAATGTTATTGGTAACCTGAAACTCTTTTATGCTGTAAAACCTTGAAAATATATATGTTT
TTAACATACAAGGTACAACCACTTACAATAACCATTGGACTTTGAGAAAATACGACATTTTGAACCTTTTATATATACAAG

4160

LRRK2

LRRK2-201

LRRK2-201

AACTGTTTTTTAATTATATTATTTCTTAAATGAAATCTAAATTTTTCTAATTTAAAATAAGCTATATTAAGAAAAAGCAA
TTGACAAAAAATTAATATAATAAAGAATTTACTTTAGATTTAAAAGATTAAATTTTTATTTCGATATAATTTCTTTTCGTT

4240

LRRK2

LRRK2-201

LRRK2-201

TCTATATATATATATCTCATCAACTTTGTA

4320

LRRK2

LRRK2-201

LRRK2-201

CCCAGATTATTATGCTGTTACATCTGGAATCTCCCTTTTGTGCTTTTCTATCTTTTCCCTTTGTTGTCTTGTGTCAGCT
GGGTCTAATAATACGACAATGTAGACCTTAGAGGGAAAAACAACGAAAAGATAGAAAAGGAAACAACAGAACACAGTCGA

4400

LRRK2

LRRK2-201

LRRK2-201

ATTCCTTCAAACACTATGGCTTTTTAGAAATGGAGACTAAACTGCTGCTTGCATGATGCTGCAATGAACTCTTCTGTGCAT
TAAGGAAGTTTGTGATACCGAAAAATCTTACCTCTGATTTGACGACGAACGTA

4480

LRRK2

LRRK2-201

LRRK2-201

AAAGTCCTTAAAAGCTTGTGTCAGGACATTTAACCATGTAATTGGCTGCATACATGCTTGTGTTTGTAAATTTGGGTATTT
TTTCAGGAATTTTTCGAACACAGTCCTGTAATTTGGTACATTAACCGACGTATGTACGAACAAAACATTAACCCATAAA

4560

LRRK2

LRRK2-201

LRRK2-201

PCR Forward

ATAGTACAGTGGCAGTCATATTTGC

TTTAATGTTTCTTTTATTAACCTTTTTTACAGCTAGCCAACGTGAGCAAATAGTACAGTGGCAGTCATATTTGCTTGAGTG
AAATTACAAAGAAAATAATTGAAAAAATGTCGATCGGTTGCACTCGTTTTATCATGTCACCGTCAGTATAAACGAACTCAC

4640

LRRK2

LRRK2-201

LRRK2-201

GCTTTTATTCTTTTCATTGTAGACTCCAAATTGGTTGACTTTAAAACGAATTTAGAAGATTAATTCACAGATAAGGAAGA
CGAAAAATAAGAAAAGTAACATCTGAGGTTTAACCAACTGAAATTTTGCTTAAATCTTCTAATTTAAGTGTCTATTCTTCT

4720

LRRK2

LRRK2-201

LRRK2-201

GAAAAATAAACTATATGACGTTAATTTGATATAATTTGTGGGTTTATGAAATGCTTATTTTATTTAGGAGTGAATAACT
CTTTTATATTTGATATACTGCAATTAACCTATATTAACACCCAAATACTTTACGAATAAAATAAATCCTCACTTATTGA

4800

LRRK2

LRRK2-201

LRRK2-201

CATCTTAAGGCATGAAGATGGGAAAGGAAAACTATACCACTACCGTTATATATGCCACCTAAAAGGGTGAAGAATTGGGT
GTAGAATTCGGTACTTCTACCCTTTCTTTTGTATGGTGATGGCAATATATACGGTGGATTTTCCCCTTCTTAACCCA

4880

LRRK2

LRRK2-201

LRRK2-201

TAAGAAAGGCCAAAAATGACTTTTTAAAATGTCGTAAGGTTACATTTTTTCTTAGGTTTAAGGAAAAAAGGACAGTTGT
ATTCTTTCCGGTTTTTACTGAAAAATTTTACAGCATTCCAATGTAAGGAAAAAAGAAATCCAAATTCCTTTTTTCTGTCAACA

4960

LRRK2

LRRK2-201

LRRK2-201

Donor Template SNV -> Rev

CAACAGGAATGT

TCTTTTCTTCTTCTGAAGTCTGCTAGTTTCTTTTTCCATTCAAGTGAATGTCACGGAAAGCAAATATCAACAGGAATGT
AGAAAAAGAAGAAGACTTCAGACGATCAAAGAGAAAAAGGTAAGTTCACTTACAGTGCCTTTTCGTTTATAGTTGTCTTACA

5040

LRRK2

LRRK2-201

LRRK2-201

Donor Sequence SNV -> Rev

Donor Template SNV -> Rev

GAGCAGGCCAGTTTCAAAGCAAACACAAGAGGGTTTTGTGTCTTTCCCTCCAGGCTCGCGCTTCTTCTTCCCCTGTGAT
GAGCAGGCCAGTTTCAAAGCAAACACAAGAGGGTTTTGTGTCTTTCCCTCCAGGCTCGCGCTTCTTCTTCCCCTGTGAT
CTCGTCCGGGTCAAACCTTTCGTTTGTGTTCTCCAAAACACAGAAAGGGAGGTCCGAGCGCGAAGAAGAAGGGGACACTA

5120

LRRK2

LRRK2-201

1440 A R A S S 1445 S P V I

ENSE00003508420

LRRK2-201

Donor Sequence SNV -> Rev

gRNA Protospacer Sequence

PAM

SNV

GGTCCGAACGCGAAGAAGAA

Donor Template SNV -> Rev

TCTCGTTG

TCTCGTTGGCACACATTTGGATGTTTCTGATGAGAAGCAACGCAAAGCCTGCATGAGTAAAATCACCAAGGAACTCCTGA
AGAGCAACCGTGTGTAAACCTACAAAGACTACTCTTCGTTGCGTTTCGGACGTACTCATTTTAGTGGTTCCTTGAGGACT

5200

LRRK2

LRRK2-201

1450 L V G T H L 1455 D V S D E 1460 K Q R K A 1465 C M S K I 1470 T K E L L

ENSE00003508420

LRRK2-201

Donor Sequence SNV -> Rev

ATAAGCGAGGGTTCCTGCCATACGAGATTACCACTTTGTGAATGCCACCGAGGAATCTGATGCTTTGGCAAACTTCGG
TATTCGCTCCCAAGGGACGGTATGCTCTAATGGTGAAACACTTACGGTGGCTCCTTAGACTACGAAACCGTTTTGAAGCC

5280

LRRK2

LRRK2-201

1475 N K R G F P A I R D Y H 1480 F V N A T E E S 1485 D A L A K 1500 L R

ENSE00003508420

LRRK2-201

CTTACGGTGGCTCCTTAGAC
Sanger Sequencing Primer

AAAACCATCATAAACGAGAGCCTTAATTTCAAGGTAACATGGTAGGCTGGTAGAGAAATGTAATTTATTGATTCTCAACT
TTTTGGTAGTATTTGCTCTCGGAATTAAGTTCCATTGTACCATCCGACCATCTCTTTACATTAATAACTAAGAGTTGA

5360

LRRK2

LRRK2-201

1505 K T I I N E S L 1510 N F K

ENSE00003508420

LRRK2-201

GCCTAGAAATGTCAGAAATTTTGAGAAAGTGAGCAACTCACTTAAAATTGTGGGTTTTCTTTCTTGTTGCTGTTAGCATT
CGGATCTTTACAGTCTTTAAAACCTCTTCACTCGTTGAGTGAATTTAACACCCAAAAGAAAGGAACAACGACAATCGTAA

5440

LRRK2

LRRK2-201

LRRK2-201

ATTAAAGTCCTTTCCATTTTAAAATTATTTATGCCAGACTTCATTTCTAATTCATAGAAATGGGAACAAAAATAATTAG
TAATTTCAAGGAAAGGTAAAATTTAATAAATACGGTCTGAAGTAAAGATTAAGTATCTTTACCCTTGTTTTTATTAATC

5520

LRRK2

LRRK2-201

LRRK2-201

AGGAACCTGAGAGAACTAAGAGACCGTTTCTGGGATACTGAGAAAATGTTTCTGAGAGAGAATCTGAGAAAATGTTTTT
TCCTTGGACTCTCTTTGATTCTCTGGCAAAGACCCATGACTCTTTTACAAAGACTCTCTCTTAGACTCTTTTACAAAA

5600

LRRK2

LRRK2-201

LRRK2-201

GATGCCTTTTCTGATTCAACTTCTTATAGTGGTGATTCAATCACAAGGGTAAAGGTGAATACTGAGGTCTTGGGATCATC
CTACGGAAAAGACTAAGTTGAAGAATATCACCACTAAGTTAGTGTCCCATTTCCACTTATGACTCCAGAACCCCTAGTAG

5680

LRRK2

LRRK2-201

LRRK2-201

CTCCAGAACCCCTAGTAG
PCR Reverse

TTTCTTCTATTATTCTTTAACTGTTATTTTCCATTTCTCTTTTCTTTTGGAAATTCCTGTTTTATGGACATCTTGATCT
AAAGAAGATAATAAGAAATTGACAATAAAAAGGTAAAGGAGAAAAGAAAACCTTAAGGACAAAATACCTGTAGAACTAGA

5760

LRRK2

LRRK2-201

LRRK2-201

AAAGAAGA
PCR Reverse

TTTGTGCCACTCATTGATGAATTTTGTCACTGTGATTCCCATTTCCAATTTTTTCCCTCCGTATTGTGAGGCAGCTGTTT
AAACACGGTGAGTAAGTACTTAAAACAGTGACACTAAGGGTAAAGGTTAAAAAAGGGAGGCATAAACACTCCGTCGACAAA

5840

LRRK2

LRRK2-201

LRRK2-201

TATTTAGTCATGAAGACCACTAACTTGGTTTTTCAGCAGTGTCTCACTAATACTTAGTTTCATACAAAATGGGCTTTTTAT
ATAAATCAGTACTTCTGGTGATTGAACCAAAAAGTCGTACAGAGTGATTAATGAATCAAGTATGTTTTACCCGAAAAATA

5920

LRRK2

LRRK2-201

LRRK2-201

TTTAGGAATTATGTTTTAAATGTTTAAAGTTATCTTCTCGTAAGCCAAATTTTTATAAAATGTAAATAAATCAGTTATCA
AAATCCTTAATACAAAATTTACAAAATTTCAATAGAAGAGCATTTCGGTTTTAAAAATATTTTACATTTATTTAGTCAATAGT

6000

LRRK2

LRRK2-201

LRRK2-201

GAGAGAACACTTTTTTTTTTAAATACTTGGCAGAAAAAGAAATCTTCACTGGGTACTACAGGGAGTGTGGTGTAAACTG
CTCTCTTGTGAAAAAAAAAATTTATGAACCGTCTTTTTCTTTAGAAAGTGACCCATGATGTCCCTCACACCACATTTGAC

6080

LRRK2

LRRK2-201

LRRK2-201

TACTGAAAAATACCCTTGATAGTTCCATATGACAAACATAATGATGAATTTCACTTAGTCTGTCTTGGCTTAGCTCAATA
ATGACTTTTTATGGGAACATCAAGGTATACTGTTTGTATTACTACTTAAAGTGAATCAGACAGAACCGAATCGAGTTAT

6160

LRRK2

LRRK2-201

LRRK2-201

GCACTAATGATCAAGATACTGGCTGATAAATAGAGTCCTATTTGGCCTGGGCAGTCCCAGCATAATTATGTAATAGTGTC
CGTGATTACTAGTTCTATGACCGACTATTTATCTCAGGATAAACCGGACCCGTCAGGGTCGTATTAATACATTATCACAG

6240

LRRK2

LRRK2-201

LRRK2-201

CCACTATATTCTCAAAAAGCATTCCAATTTGGATGATAAATTATATAGTCACCTTGGTTATAACTCCATGCTGGCCAGTTA
GGTGATATAAGAGTTTTTCGTAAGGTTAAACCTACTATTTAATATATCAGTGGAACCAATATTGAGGTACGACCGGTCAAT

6320

LRRK2

LRRK2-201

LRRK2-201

GCTTAGTTCTGTTCCATTTATATAGATTATGTGTGCTTCACTCCAAAACCTAATGAGCCATTTGTAAAAGTGATGGCTTT
CGAATCAAGACAAGGTAAATATATCTAATACACACGAAGTGAGGTTTTGGATTACTCGGTAAACATTTTCACTACCGAAA

6400

LRRK2

LRRK2-201

LRRK2-201

TGCGGTGCCAGGGAGAGAATTTGTATGTTTGTATCCTTCAACACACATTTATTACAGTTATTAAAAGGTTTTATTGATG
ACGCCACGGGTCCCTCTCTTAAACATACAAACATAGGAAGTTGTGTGTAATAATGTCAATAATTTTCCAAAATAACTAC

6480

LRRK2

LRRK2-201

LRRK2-201

ATAGATGGTAATGTCATGTAAAAATGACATATTATTTATTTGTAGACTTTCCTATTCTCTTGGTGGACATGTAATTAGAA
TATCTACCATTACAGTACATTTTTACTGTATAATAAATAAACATCTGAAAGGATAAGAGAACAACCTGTACATTAATCTT

6560

LRRK2

LRRK2-201

LRRK2-201

ACTAATATGACTTAAAGAAAAACAAATACACAAAATTTATTCATCCAATTAATCTCTTAATCCAGGTGTTTTTTTTTCT
TGATTATACTGAATTTCTTTTTGTTTATGTGTTTTAAATAAGTAGGTTAATTAGAGAATTAGGTCCACAAAAAAAAAAGA

6640

LRRK2

LRRK2-201

LRRK2-201

GAGACTATACCCATACTTCAATAACTTTGTTGTTACTGAGAATTTTTGAGTTTCCCTTTTTGTCATTGTTGTCAGAGAA
CTCTGATATGGGTATGAAGTTATTGAAACAACAATGACTCTTATAAAACTCAAAGGGAAAAACAGTAACAACAGTCTCTT

6720

LRRK2

LRRK2-201

LRRK2-201

TGTATCATATCTTTAAAAAGACTTGTTGGAGGATGAGTTTGTGTTTTGAAAAGGCCTGAATTTAGTTGATGCAAAGTCACAG
ACATAGTATAGAAATTTTTCTGAACAACCTCCTACTCAAACAAAACTTTTCCGGACTTAAATCAACTACGTTTTCAGTGTC

6800

LRRK2

LRRK2-201

LRRK2-201

ATAAGATGGTTCATTAAGCTGTATTAATACTGCTTTTTGTCTAATAGATATCATTACCAATAAGTCAGACTAGTTTTTCTT
TATTCTACCAAGTAATTCGACATAATTATGACGAAAACAGATTATCTATAGTAATGGTTATTTCAGTCTGATCAAAAAGAA

6880

LRRK2

LRRK2-201

LRRK2-201

TTGGCACTTATAAATCACCTTTGAAGACAACTTTTTACAAGGAAATAAAACAAATGCTTTGAGAAATACCAGTATTATTG
AACCGTGAATATTTAGTGGAACCTTCTGTTGAAAAATGTTCCCTTTATTTGTTTACGAAACTCTTTATGGTCATAATAAC

6960

LRRK2

LRRK2-201

LRRK2-201

AAAGAAAAGTATATATTGCTAATGGATGCAGCATTCTGGCATAATGGTTTAAAACTCATTTGATTGCTTTGTAGAAGAA
TTTCTTTTCATATATAACGATTACCTACGTCGTAAGACCGTATTACCAAACCTTTTGAGTAACTAACGAAACATCTTCTT

7040

LRRK2

LRRK2-201

LRRK2-201

TGACTCTTTTCAGATGACCCAGGGCCTGTGAGCCTGCCAGAACTTGAAAAATCTTTCTTCCCTGAGGTGCTTCAACCTGAA
ACTGAGAAAAGTCTACTGGGTCCCAGGACACTCGGACGGTCTTGAACTTTTAAGAAAAGAAGGGACTCCACGAAGTTGGACTT

7120

LRRK2

LRRK2-201

LRRK2-201

TTCAAAGAGCAGCTTTTAATCTATTAGAGATCATTTTTTGTCTCTCATTTATTTTTTCATATTTGCCTTTGATCTTAGCT
AAGTTTCTCGTCGAAAATTAGATAATCTCTAGTAAAAAACAGGAGAGTAAATAAAAAAGTATAAACGGAAACTAGAATCGA

7200

LRRK2

LRRK2-201

LRRK2-201

CTTCTCTAATCTTTTTCTGTCTCAACCTTATTAACAGGTGTCTGTGCAGACACTTTTAAGTTTTGTTTTTGGCTCAGCC
GAAGAGATTAGAAAAAGACAGAGTTGGAATAATTGTCCACAGACACGCTCTGTGAAAATTCAAAAACAAAAACCGAGTCGG

7280

LRRK2

LRRK2-201

LRRK2-201

TGTCAGTTAACTGATAATCATGCTGAAAGGAGAAGCAGGACAAAAACAGAGTTCAATGCTGACAATACTCCTTTTAATCTT
ACAGTCAATTGACTATTAGTACGACTTTCTCTTCGTCTGTTTTGTCTCAAGTTACGACTGTTATGAGGAAAATTAGAA

7360

LRRK2

LRRK2-201

LRRK2-201

GTCCAGCCCATTAGCAGAGCAGGCATCTCTGTGGGCCTTGAGACGTAGTCCCGTAAAACTCATCCCGTTTCTACTTTGATT
CAGGTCGGGTAAATCGTCTCGTCCGTAGAGACACCCGGAACCTCTGCATCAGGGCATTGAGTAGGGCAAAGATGAACTAA

7440

LRRK2

LRRK2-201

LRRK2-201

TGCTTTCTTTGAGAACTCTTGTTTTATTTTTATATGGAGGTTTCTGCCTTGGATTAAAACATAAACCTCAATCTGAAGTT
ACGAAAAGAACTCTTGAGAACAATAAAAAATATACCTCAAAGGACGGAACCTAATTTTGTATTTGGAGTTAGACTTCAA

7520

LRRK2

LRRK2-201

LRRK2-201

CAATTTTCATCTTAATTTATGAACGACTAAGAGAGGGAAACATGAAAAGTGGAGGTTAGTGAAATTATCTCTAATTCTCTGG
GTTAAAGTAGAATTAATACTTGCTGATTCTCTCCCTTGTACTTTTACCTCCAATCACTTTAATAGAGATTAAGAGACC

7600

LRRK2

LRRK2-201

LRRK2-201

GTTAAGAGATACATGAAAAACAGTCTCTTGAGTAACCATTTGCAGGTAAATATGGAAGTAATGGTTATGGTTGTCTCTTTA
CAATTCTCTATGTACTTTTTGTCAGAGAACTCATTGGTAAACGTCCATTTATACCTTCATTACCAATACCAACAGAGAAAT

7680

LRRK2

LRRK2-201

LRRK2-201

AGTTTTTAGTCACAAGTAGAAAAAGACCAAGTTAATTTTTTCTGTGTGTGCTGAATTTCTATTTGTAGTAAGTGTAAAGA
TCAAAAATCAGTGTTCATCTTTTTCTGGTTCAATTAAAAAAAGACACACACGACTTAAAGATAAACATCATTACATTCT

7760

LRRK2

LRRK2-201

LRRK2-201

ATTTAAGCAGAAATCTGATTCGTATTTTCAGATAAAAAGAATATGTAATTTCCATAGGTCAGAAATAGGGAGAGTTTG
TAAATTCGTCTTTAAGACTAAGCATAAAAAGTCTATTTTTCTTATACATTAAAGGTATCCAGGTCTTTATCCCTCTCAAAC

7840

LRRK2

LRRK2-201

LRRK2-201

CCATCTGGTGGTTCTTAACGGCACTCTGGATATTATTAAGAGTTGCATTTCTATTTAAAATTATATTTTAAAAACGTTT
GGTAGACCACCAAGAATTGCCGTGAGACCTATAATAATTCTCAACGTAAAGATAAATTTTAAATATAAAATTTTTTGCAA

7920

LRRK2

LRRK2-201

LRRK2-201

GGAAGATACTTTTATTGTAGAAACTATCCTCTTAGGGCCATTCTTTAAAAAAATCTTATTTTATATATTTCTCATTTTGT
CCTTCTATGAAAAAATCAATCTTTGATAGGAGAATCCCGGTAAGAAATTTTTTTAGAAATAAATATATAAAGAGTAAAAACA

8000

LRRK2

LRRK2-201

LRRK2-201

TGATAGTGATTAGATTCTAAGAGCAACAGAACAATGATCATCCTCTCCTATCAGAATCACTGATGTTTAGATGATTTCTC
ACTATCACTAATCTAAGATTCTCGTTGTCTTGTACTAGTAGGAGAGGATAGTCTTAGTGACTACAAATCTACTAAAGAG

8080

LRRK2

LRRK2-201

LRRK2-201

ATTTTCCCAAGTTCAAGGTTCCATGAAAAACATAGCTTGAGTGGGATTTTATGTCTCTGCGTTTCACTGTTGATATATAT
TAAAAGGGTTCAAGTTCCAAGGTACTTTTTGTATCGAACTCACCTAAAATACAGAGACGCAAAGTGACAACCTATATATA

8160

LRRK2

LRRK2-201

LRRK2-201

GTCCTCCCAATATAACATTTTACAAATAACCAAGCACAAAATTTAATATTTTACCTTGAATATTTAAAAATATAATAATAT
CAGGAGGGTTATATTGTAAATGTTTATTGGTTCGTGTTTTAAATTATAAAATGGAACCTTATAAAATTTTATATTATTATA

8240

LRRK2

LRRK2-201

LRRK2-201

CCAAAAGCTCTTGTAAATTTGTAAGTACTGATATCTTATACTAGCGTGTCTGTTTCACATTAAGTTTAAATGTCTTAGGATATAAA
GGTTTTTCGAGAACATTAACATGACTATAGAATATGATCGCACAGACAAAAGTGAATTCAAATTACAGAATCCTATATTT

8320

LRRK2

LRRK2-201

LRRK2-201

AAATCTTTTTTATGGTTAGTGATTTATCTTGTTTTTTTTTTCCATGGAATTTCTGGATAGCGAGATAAATATTTCCATACT
TTTAGAAAAAATACCAATCACTAAATAGAACAAAAAAGGTACCTTAAAGACCTATCGCTCTATTTATAAAGGTATGA

8400

LRRK2

LRRK2-201

LRRK2-201

ATTTTATTTGATATTTCCAAATTTGCCTCTGAATCAACAATTTTCTATTTTAAATTTTATTGTAAGTACTTGTTCCTTACAACC
TAAAAATAACTATAAAGGTTTAAACGGAGACTTAGTTGTTAAAAGGATAAAATTAAGTAACATGAACAAGGAATGTTGG

8480

LRRK2

LRRK2-201

LRRK2-201

TAAATAGCTTTTTATTATATTTTGAATTTATTTAAAAATGTAAGTACTTCTGAATAATATATCTGTTTCTGTAAAAACTGTTAG
ATTTATCGAAAAATAATATAAAACTAAAAATAATTTTTACATGAAGACTTATTATATAGACAAAGACATTTTTGACAATC

8560

LRRK2

LRRK2-201

LRRK2-201

CACTGAATTTGCCAACCATTTGACAAATACACAAATAAAATAGATTTTTACGGCTTGTCAATTTGTAATTTATAGATCCG
GTGACTTAAACGGTTGGTAAACTGTTTATGTGTTTATTTTATCTAAAAATGCCGAACAGTAAACATTAAAGTATCTAGGC

8640

LRRK2

LRRK2-201

LRRK2-201

I R
ENSE...

AGATCAGCTTGTGTTGGACAGCTGATTCAGACTGCTATGTAGAACTTGAAAAAATCATTTTATCGGAGCGTAAAAATG
TCTAGTCGAACAACAACCTGTGACTAAGGTCTGACGATACATCTTGAACCTTTTTTAGTAAAAATAGCCTCGCATTTTTAC

8720

LRRK2

LRRK2-201

1515 D Q L V V 1520 G Q L I P 1525 C Y V E 1530 L E K I I 1535 S E R K 1540 N

ENSE00003622781

LRRK2-201

TGCCAATTGAATTTCCCGTAATTGACCGGAAACGATTATTACAAC TAGTGAGAGAAAATCAGCTGCAGTTAGATGAAAAT
ACGGTTAACTTAAAGGGCATTAACTGGCCTTTGCTAATAATGTTGATCACTCTCTTTTAGTCGACGTCAATCTACTTTTA

8800

LRRK2

LRRK2-201

V P I E F P V I D R K R L L Q L V R E N Q L Q L D E N

ENSE00003622781

LRRK2-201

GAGCTTCCTCACGCAGTTCACTTTCTAAATGAATCAGGTTTGTGTTTTTCGTTCTTATTTTCAAAGCTCAGCTGTAGTA
CTCGAAGGAGTGCGTCAAGTGAAAGATTTACTTAGTCCAAACACAAAAAGCAAGGAATAAAAGTTTCGAGTCGACATCAT

8880

LRRK2

LRRK2-201

E L P H A V H F L N E S G L C F S F L I F K A Q L

ENSE00003622781

LRRK2-201

(in frame with LRRK2-201)

ACTTATAAAAGTGTCTTCTGAATCTTTTATAGAATTTACATTCAAAGTTGAGAGAATATCCATACGGTTCTTTAATAGGCC
TGAATATTTTACAAAAGACTTAGAAAATATCTTAAATGTAAGTTTCAACTCTCTTATAGGTATGCCAAGAAATTATCCGG

8960

LRRK2

LRRK2-201

ACTGATTTTTTTCTTTTTGGAAGATCATCATGTGTGTTTCATGACAAATCATGTATCATGTCATAAGAAAAACAAATTTAGA
TGACTAAAAAAGAAAAACCTTCTAGTAGTACACACAAGTACTGTTTAGTACATAGTACAGTATTCTTTTGTTTAAATCT

9040

LRRK2

LRRK2-201

AATCACCTAGGAGTAAAGCAGTGGAAAGAGTCCCTGAGTGGGAGTTAAAAATATTTGGGTTCTAGAACTTGTCTTTACTAT
TTAGTGGATCCTCATTTCGTCACCTTTCTCAGGGACTCACCTCAATTTTATAAACCCAAGATCTTGAACAGAAATGATA

9120

LRRK2

LRRK2-201

TCAGGAGCTGTGGAACCCTGAATAGTCAAATGACATTCATAATGTCAAATGAGTTTAGTGCATGTGAAAAGTTATTTTTAT
AGTCTCGACACCTTGGGACTTATCAGTTTACTGTAAGTATTACAGTTTACTCAAATCACGTACACTTTCAATAAAAAATA

9200

LRRK2

LRRK2-201

ATTGCAAAGGGGAATTATTGTTGGCATGGTCTAACTGGGACGCTTGGAGAGTCAATGGCTCCCTGAGATGATGCAGCTTC
TAACGTTTCCCCTTAATAACAACCGTACCAGATTGACCCTGCGAACCTCTCAGTTACCGAGGGACTCTACTACGTCGAA

9280

LRRK2

LRRK2-201

TGAGTGGAAAGATCTAGCTCTCTTGCATCAAATATTGATCTCAAAGATGAAAATTCTCAAAGCAACTTCAGTGCTAATTGT
ACTCACCTTCTAGATCGAGAGAACGTAGTTTATAACTAGAGTTTCTACTTTTAAAGAGTTTCGTTGAAGTCACGATTAACA

9360

LRRK2

LRRK2-201

GTACTTGATCATATTACCTTGCTAGAAATGTGTGAGTTGTTTGATAGTACTAGAGTAAGTGACTGGGAAGCTGCTTTTGA
CATGAACTAGTATAATGGAACGATCTTTACACACTCAACAACTATCATGATCTCATTCACTGACCCTTCGACGAAAAC

9440

LRRK2

LRRK2-201

TCCCTAGATTCTGTTGTATAAAAAATAGCTTCCCGTGGTTTTATGATCTGTTCCCTTTTCCCCATCGTTCTTAAGGTATGCT
AGGGATCTAAGACAACATATTTTTTATCGAAGGGCACCAAATACTAGACAAGGAAAAGGGGTAGCAAGAATTCCATACGA

9520

LRRK2

LRRK2-201

GAGATATGCTGTGTTTCTTATCTGTATTTGAAAATAAAACATGTCTTTGTAGTGTGTATTTCAGCAAGCGAAACAGAAAAT
CTCTATACGACACAAAGAATAGACATAAACTTTTATTTTGTACAGAAACATCACACATAAGTCGTTTCGCTTTGTCTTTTA

9600

LRRK2

LRRK2-201

TATGAATTTCTACTTATGTGTGAAATATGCTCTGTAATGCATGTCAGTGTCTCAAATATGCTTAAATATGATCATTTTAT
ATACTTAAAGATGAATACACACTTTATACGAGACATTACGTACAGTCACAGAGTTTATACGAATTTATACTAGTAAAATA

9680

LRRK2

LRRK2-201

GTAGTTTAAAAATACTCCATTATAATATTGGAACCTTTAGACCATAGGATGCACAGCTTCTAGTCCCAGCTCTGTCACTAG
CATCAAATTTTTATGAGGTAATATTATAACCTTGAAATCTGGTATCCTACGTGTCGAAGATCAGGGTTCGAGACAGTGATC

9760

LRRK2

LRRK2-201

CTATGCTGAAATTTCTTCACCTGCAAAATGAGGAAGTTGGACTAGATTTTTTCTAAAGCCCCTTGATATTTGTTCTAGAT
GATACGACTTTAAAGAAGTGGACGTTTTACTCCTTCAACCTGATCTAAAAAAGATTTTCGGGGAACATAAAACAAGATCTA

9840

LRRK2

LRRK2-201

TCCATGTTTCACTGTTTGATG
AGGTACAAAGTGACAAACTAC

3'













9861








5'

LRRK2

LRRK2-201

Feature	Location	Size			Type
LINC02471	1 .. 9861	9861 bp		→	gene
/note	= gene ENSG00000223914 lncRNA				
✓ LRRK2	1 .. 9861	9861 bp		→	gene
/note	= gene ENSG00000188906 Protein coding				
LINC02471-202	1 .. 9861	9861 bp		→	prim_transcript
/note	= primary transcript ENST00000641941 lncRNA				
✓ LRRK2-201	1 .. 9861	9861 bp		→	prim_transcript
/note	= primary transcript ENST00000298910				
LRRK2-204	1 .. 9861	9861 bp		→	prim_transcript
/note	= primary transcript ENST00000430804 Nonsense mediated decay				
LRRK2-206	1 .. 9861	9861 bp		→	prim_transcript
/note	= primary transcript ENST00000479187 Retained intron				
LRRK2-210	1 .. 9861	9861 bp		→	prim_transcript
/note	= primary transcript ENST00000679360 Nonsense mediated decay				
LRRK2-218	1 .. 9861	9861 bp		→	prim_transcript
/note	= primary transcript ENST00000680790				
✓ LRRK2-201	449 .. 8837	8389 bp		→	CDS
▶ 5 segments = 961 bp					
/note	= coding sequence ENSP00000298910				
/translation	= IPPEIGCLENLTSLDVSYNLELRSFPNEMGKLSKIWDLPLDELHLNFDKFKHIGCKAKDIIR,,FLQQLKKA V PYNRMKLMIVGNTGSGKT TLLQQLMKT K KSDLGMQ SATV GIDV KDWPIQ IRDKRKRDLV LNV WDF A,,GREEFYSTHP HFMTQ RALYLAVYDLSKGQAEVDAMKP WLFNIK,,ARASSSPVILV GTHLDV SDEKQ RKACMSKITKELLNKRGFPA IRDYHFVNATEESDALAKLRKTIINESLNFK,,IRDQLVVGG LIPDCYVELEKIILSERKNVPIEFPVIDRKRLQLVRENQLQLDENELPHAVHFLNES 320 amino acids = 36.9 kDa				
LRRK2-218	449 .. 8837	8389 bp		→	CDS
▶ 5 segments = 961 bp					
/note	= coding sequence ENSP00000505335				
/translation	= IPPEIGCLENLTSLDVSYNLELRSFPNEMGKLSKIWDLPLDELHLNFDKFKHIGCKAKDIIR,,FLQQLKKA V PYNRMKLMIVGNTGSGKT TLLQQLMKT K KSDLGMQ SATV GIDV KDWPIQ IRDKRKRDLV LNV WDF A,,GREEFYSTHP HFMTQ RALYLAVYDLSKGQAEVDAMKP WLFNIK,,ARASSSPVILV GTHLDV SDEKQ RKACMSKITKELLNKRGFPA IRDYHFVNATEESDALAKLRKTIINESLNFK,,IRDQLVVGG LIPDCYVELEKIILSERKNVPIEFPVIDRKRLQLVRENQLQLDENELPHAVHFLNES 320 amino acids = 36.9 kDa				
✓ Donor Sequence SNV -> Rev	5029 .. 5128	100 bp		⇌	misc_feature
✓ gRNA Protospacer Sequence	5091 .. 5110	20 bp		⇌	misc_feature
LRRK2-220	5095 .. 9861	4767 bp		→	prim_transcript
/note	= primary transcript ENST00000681696				
LRRK2-220	5095 .. 8837	3743 bp		→	CDS
▶ 2 segments = 421 bp					
/note	= coding sequence ENSP00000505871				
/translation	= ARASSSPVILV GTHLDV SDEKQ RKACMSKITKELLNKRGFPA IRDYHFVNATEESDALAKLRKTIINESLNFK,,IRDQLVVGG LIPDCY VELEKIILSERKNVPIEFPVIDRKRLQLVRENQLQLDENELPHAVHFLNES 140 amino acids = 16.1 kDa				
✓ SNV	5098 .. 5098	1 bp		⇌	misc_feature
/note	= SNV = T REV = C				
✓ PAM	5111 .. 5113	3 bp		⇌	misc_feature
LRRK2-211	5130 .. 9861	4732 bp		→	prim_transcript
/note	= primary transcript ENST00000679532 Nonsense mediated decay				
LRRK2-213	5131 .. 9861	4731 bp		→	prim_transcript
/note	= primary transcript ENST00000680018 Nonsense mediated decay				

Feature		Location	Size			Type
LRRK2-215		5133 .. 9861	4729 bp			prim_transcript
/note	= primary transcript ENST00000680422 Nonsense mediated decay					
LRRK2-217		5133 .. 9861	4729 bp			prim_transcript
/note	= primary transcript ENST00000680453 Nonsense mediated decay					
LRRK2-216		5221 .. 9861	4641 bp			prim_transcript
/note	= primary transcript ENST00000680425 Nonsense mediated decay					
LRRK2-219		7053 .. 9861	2809 bp			prim_transcript
/note	= primary transcript ENST00000681136 protein_coding_CDS_not_defined					
LRRK2-207		7378 .. 9861	2484 bp			prim_transcript
/note	= primary transcript ENST00000481256 protein_coding_CDS_not_defined					

Primer	Length		Binding Sites		Tm	Date Added
✓ PCR Forward	25-mer		4609 .. 4633		57°C	May 4, 2023
/sequence	= ATAGTACAGTGGCAGTCATATTTGC 40% GC / 7696.1 Da					
✓ Donor Template SNV -> Rev	100-mer		5029 .. 5128		78°C	May 4, 2023
/sequence	= CAACAGGAATGTGAGCAGGCCAGTTTGAAAGCAAACACAAGAGGGTTTTGTGTCTTTCCCTCCAGGCTCGCGCTTCTTCTT 61% GC / 7677.1 Da					
✓ gRNA Protospacer	20-mer		5091 .. 5110		53°C	May 4, 2023
/sequence	= AAGAAGAAGCGCAAGCCTGG 55% GC / 6209.1 Da					
✓ Sanger Sequencing Primer	20-mer		5241 .. 5260		58°C	May 4, 2023
/sequence	= CAGATTCCTCGGTGGCATTG 55% GC / 6084.0 Da					
✓ PCR Reverse	25-mer		5664 .. 5688		58°C	May 4, 2023
/sequence	= AGAAGAAAGATGATCCCAAGACCTC 44% GC / 7677.1 Da					