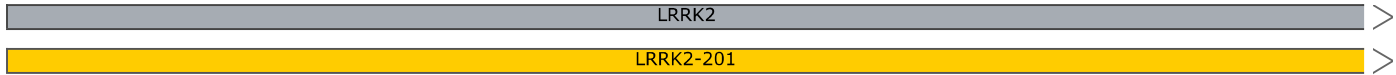


**ASK2J00170\_LRRK2\_I2020T\_D02\_BB**  
6405 bp

5'  
3'

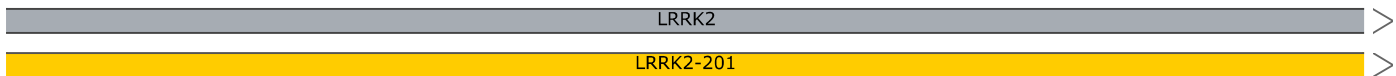
CAGTGCCTGGGGCATAGAAAGCCAAGCAGTGTATGCAACTTTCTTCTCTTCTTCTTCTTCTGAAATGCTATGAATATGCCTTTTA  
GTCACGGACCCCGTATCTTCGGTTCGTCACATACGTTGAAAGGAAGAGAAGAAAGAGAAGACTTTACGATACTTATACGGAAAAT

85



GGTAGTATCCAGAAATGTTCTTCTGAAAGGGTCCAGAACTACTGAAACTGTACAGATTATGAAATGAAACAGGGTGCAGGG  
CCATCATAGGTCTTTACAAGGAAGGACTTTCCAGGTCTTTGATGACTTTTGACATGTCTAATACTTTACTTTGTCCCACGTCCC

170



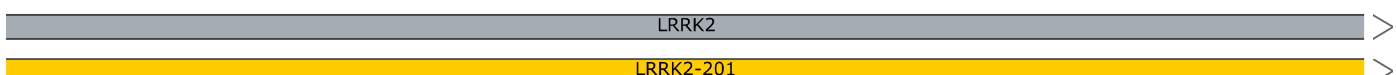
ATTTGGATTTGAGTTGATGTTTCTGCTTTTGAACACCAGGGGGAATCTTGGGTTACATTAATCTAGGTAAAGTGCAGAATAGTCT  
TAAACCTAAACTCAACTACAAAGACGAAAACCTTGTGGTCCCCCTTAGAACCCAATGTAATTAGATCCATTTACGTCTTATCAGA

255



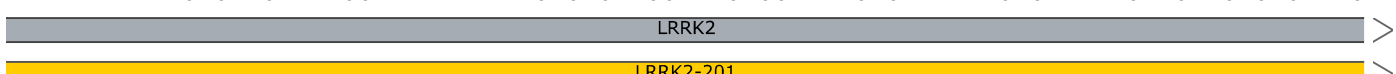
CCTGTATTTTCAGTGCCTCTTTCTTTCATTTAACTAACTCTAGGTTCTAGTTTTTCCCTAATTCTTCCACAAATCCCCAAAGTGT  
GGACATAAAGTCACGGGAGAAAGGAAGTAAATTGATTGAGATCCAAGATCAAAAAGGGATTAAGAAGGTGTTTAGGGGTTTCACA

340



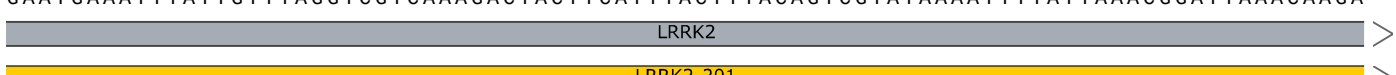
TTATTTATAAAGTGAAGAATTGCTATTTTTTAACACTGTTTCGAAACACCTTATCTCTAAAATGACTTATTCTAGTTCTCTGAAAC  
AATAAATATTTCACTTCTTAACGATAAAAAATTGTGACAAGCTTTGTGGAATAGAGATTTTACTGAATAAGATCAAGAGACTTTG

425



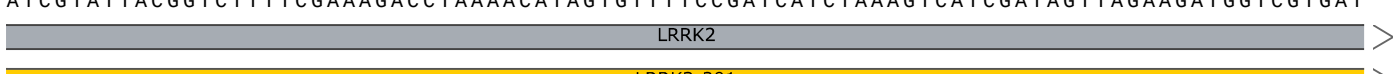
CTTACTTTAAATAACAAATCCAGCAGTTTCTGATGAAGTAAATGAAATGTCAGCATATTTTAAATAATTTGCCTAATTTGTTCT  
GAATGAAATTTATTGTTTAGGTCGTCAAAGACTACTTCATTTACTTTACAGTCGTATAAAATTTTATTAAACGGATTAAACAAGA

510



TAGCATAATGCCAGAAAAGCTTTCTGGATTTTGTATCACAAAAGGCTAGTAGATTTTCAGTAGCTATCAATCTTCTACCAGCACTA  
ATCGTATTACGGTCTTTTCGAAAGACCTAAAACATAGTGTTCGGATCATCTAAAGTCATCGATAGTTAGAAGATGGTCGTGAT

595



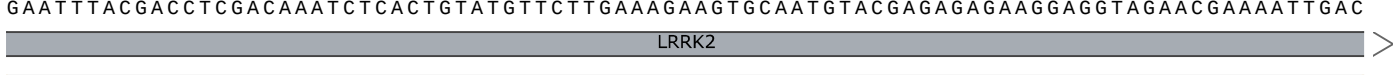
AGTATATTTTAAAAACTCAGCATTAAGGTTTATTTTTTCCAAGTATGTTTTCAGCACAGGAAAATAAATCATGCTCCTTTGGAGTCC  
TCATATAAAATTTTGGAGTCGTAATTCAAAATAAAAGGTTCAACAAAGTCGTGTCTTTATTTTAGTACGAGGAAACCTCAGG

680



CTTAAATGCTGGAGCTGTTTAGAGTGACATACAAGAACTTTCTTACGTTACATGCTCTCTCTTCTCCTCCATCTTGCTTTTAACTG  
GAATTTACGACCTCGACAAATCTCACTGTATGTTCTTGAAGAAGTGCAATGTACGAGAGAGAAGGAGGTAGAACGAAAATTGAC

765



TTAGCTTACTTCTCCAATTCATCCACTTCGTTTGAACCTTTTATCATAATTCTATAAACTTATGAAAATACAGTCAACTGCAT  
AATCGAATGAAGAGGTTAAGTTAGGTGAAGCAAACCTTGAGAAATAGTATTAAGATATTTTGAATACTTTTATGTCAGTTGACGTA

850



TTTCTGTATGTTTCTGTGTTTCAATATCTTCAAAATGGAATGTACTGCCTTGGTACATCACCCACTATGAATCTGTTATTTCTGT  
AAAGACATACAAAGACACAAAGTTATAGAAGTTTTACCTTACATGACGGAACCATGTAGTGGGTGATACTTAGACAATAAAGACA

935

LRRK2

LRRK2-201

TATATCCCACAGTTGCCAGGCCAGGATACTTGTCCCATCCAGGCCAAACACCTTCCCCGAAAGCAAGTATGCATTTGTCCACCA  
ATATAGGGTGTCAACGGTCCGGTCTATGAACAGGGTAGGTCCGGTTTGTGGAAGGGGGCTTTCGTTTCATACGTAAACAGGTGGT

1020

LRRK2

LRRK2-201

GGTCCTTGACTCTATTTTACATTATCTTTTTAGTCAATTCATTTATTTTTATGCCACTCCTGCTGTCTTGGTTCAGTATGTCCAG  
CCAGGAACTGAGATAAAATGTAATAGAAAAATCAGTTAAGTAAATAAAAAATACGGTGAGGACGACAGAACCAAGTCATACAGGTC

1105

LRRK2

LRRK2-201

GGAATTATCAGAATTTCTTTTCTAAAAATAAAAAATCTGTTTATGCTTGCAATTCCTTGACAGTTCTCAATTATCTGCAAAGTGCAT  
CCTTAATAGTCTTAAAGAAAAGATTTTATTTTTAGACAAATACGAACGTTAAGGAACTGTCAAGAGTTAATAGACGTTTTCACGTA

1190

LRRK2

LRRK2-201

CCAAACTTCTTGGCATAGCATCAAAGATCTTTCTGTATGCCTCTTGCTTCCCTTTGCGGCCCTGCCACCCCACTGCCACACTG  
GGTTTGAAGAACCCTATCGTAGTTTCTAGAAAGACATACGGAGAACGAAGGGAAACGCCGGGGACGGTGGGGTGACGGGTGTGAC

1275

LRRK2

LRRK2-201

CATTCTAGCCGTGATGACAGGCTTGAATTTTCAGTTATGCTCATGTCTGTCCATCATTGTATTTGTTATTCCTCTCTTTCCACCA  
GTAAGATCGGCACTACTGTCCGAACTTAAAAAGTCAATACGAGTACAGACAGGTAGTAACATAAAACAATAAGGAGAGAAAAGGTGGT

1360

LRRK2

LRRK2-201

AGTTGTCTGCCTAGAGAGCTCATTTTCCCTAAGAATTTCTTACAAACCATCTCTACTATGAAGCTCAAGTGTGTCATGAAGTGT  
TCAACAGACGGATCTCTCGAGTAAAAGGAATTTCTAAGAAGTGTGGTAGAGATGATACTTCGAGTTCACACAGTACTTCACA

1445

LRRK2

LRRK2-201

TAGCTTCTCCAAC TTGTGTTTCTTGCAGACACTCTGTGCAAGACATTGACTTAGGTGCTAAAGAGGGAAAGCTAGATATTATATT  
ATCGAAGAGGTTGAACACAAAGAACGCTCTGTGAGACACGTTCTGTAACCTGAATCCACGATTTCTCCCTTTCGATCTATAATATAA

1530

LRRK2

LRRK2-201

GTTCTTGAGGTTGAAAGCTTACAGTCTAGTAGGAGAGTCAACTTTGCTGTCTTTACCTCAGTGTTTTTCTCCCTCTGTGCTTCCC  
CAAGAACTCCAAC TTTCGAATGTCAGATCATCTCTCAGTTGAAACGACAGAAATGGAGTCACAAAAAGAGGGAGACACGAAGGG

1615

LRRK2

LRRK2-201

TAGCACGTGGTACTTACATATTTCTGGAATCTTGATTAACACCTGTTTGGAGACTGTCTGAGCACAATCCTTCTGGATTGTGAC  
ATCGTGCACCATGAATGTATAAAGACCTTAGAACTAATTTGTGGACAAACTCCTGACAGACTCGTGTTAGGAAGACCTAACACTG

1700

LRRK2

LRRK2-201

ACCCTCAAGGGAGCAGAGATACAAAGATGGCTTTGTATACTAAATGACTGGCCCTCATAGATACCTAGTACATATTTGTCAAATA  
TGGGAGTTCCTCGTCTCTATGTTTCTACCGAAACATATGATTTACTGACCGGGAGTATCTATGGATCATGTATAAACAGTTTTAT

1785

LRRK2

LRRK2-201

AATGAATGCATTCTATTTTTGGAATAATTCTATTCAGAATCAGATAAAGTTTACTTTAAGCTATGAAGAAAGAAGTCTCTTAGCA  
TTACTTACGTAAGATAAAAAACCTTATTAAGATAAGTCTTAGTCTATTTCAAATGAAATTCGATACTTCTTTCTTCAGAGAATCGT

1870

LRRK2

LRRK2-201

ACTCTTACAATAATCACAAATCAAAGAATGACTGTTTAACTTAATATAAACCCAGTTTGTTTTAAATAAAATATTTGACAATAGTCAT  
TGAGAATGTTATTAGTGTTAGTTTCTTACTGACAAATTGAATTATATTTGGTCAAACAAAATTATTTTATAAACTGTTATCAGTA

1955

LRRK2

LRRK2-201

GGTTACACAATGCATAAATTATGGCTAAATTATTATCAGGAAGGAAAAATCTTTACTTATTATTTCAAAGCTATTTTGCTAGTC  
CCAATGTGTTACGTATTTAATACCGATTTAATAATAGTCCTTCTTTTGTAGAAATGAATAATAAAGTTTTTCGATAAAACGATCAG

2040

LRRK2

LRRK2-201

TATTAAGCTATTAGAAGTCACTTCTTAAGATTAAATTCTATAATTGAACATTTTAACTAACCAAGATATTATCTCTTTGCCA  
ATAATTTTCGATAATCTTGACGTGAAGAATTCTAATTTAAGATATTAACCTTGTAATAATTGATTGGTTCTATAATAGAGAAACGGT

2125

LRRK2

LRRK2-201

CTGACATTATTTCAAATTAAGCTTAACTATTTCTTTTTAGCCTTTGGAAAGTATTCTGAAAGAGTCTGTGTTCTATAAATACT  
GACTGTAATAAAGTTAATTCGAATTGATAAAGAAAAATCGGAAACCTTTCATAAGACTTCTCAGACACAAGATATTTATATGA

2210

LRRK2

LRRK2-201

TAAAGAGGCATGTCTTATAAAGGATTTGGATACTATTCAATGATGTATGACTTGGCTTTAGCTTTTTTATTCTTAATCTCTCAGC  
ATTTCTCCGTACAGAATATTTCTAAACCTATGATAAGTTACTACATACTGAACCGAAATCGAAAAAATAAGAATTAGAGAGTCG

2295

LRRK2

LRRK2-201

TTTTCTCTTCAGCAGGGGAAGAGTACCTAATGGCCTTTCAGTAATCCCTTGGTAAATTTTTCTTTCAAGCCATTACTTACTGTG  
AAAAGAGAAGTCGTCCCTTCTCATGGATTACCGGAAAGTCATTAGGGAACCATTTAAAAAGAAAGTTCGGGTAATGAATGACAC

2380

LRRK2

LRRK2-201

AAGGTCAACTTCATTAGTGATTTATCTTATTTTTTTCAGCCAAAATAGGTATATTGAAATGAATGGGCCTAATGTCAAATGTC  
TTCCAGTTGAAGTAATCACATAAATAGAATAAAAAAGTTCGGGTTTTATCCATATAACTTTACTTACCCGGATTACAGTTTACAG

2465

LRRK2

LRRK2-201

CCGACTACATCCTGGAAGAGAGAGAATCTTCAGCTGTATTAGTTGATGCAGTTAATAATATGTACTCTCCAGGCCCTCATACAA  
GGCTGATGTAGGACCTTCTCTCTCTTAGAAGTCGACATAATCAACTACGTCAATTTATTATACATGAGAGGTCCGGGAGTATGTT

2550

LRRK2

LRRK2-201

TTGAAAGTTCAGGGTATCGTTGCTGCTCTGCTTCTAATCCTTCCAGAAGTGATTGGTGCTAGGTGATGGAGTAACTATTAATTGA  
AACTTTCAAGTCCCATAGCAACGACGAGACGAAGATTAGGAAGGTCTTCACTAACCACGATCCACTACCTCATTGATAATTA

2635

LRRK2

LRRK2-201

TATAATGTGAGCCAAAACCAACAGTCACGAATAAGCAAAGGATTTAAATTTAACTCCATTAAGTCTTGTGAGAAATTATTTTCAA  
ATATTACACTCGGTTTTGGTTGTCAGTGCTTATTCGTTTCCTAAATTTAAATTTGAGGTAATTCAGAACACTCTTTAATAAAAAGTT

2720

LRRK2

LRRK2-201

CATAGGTTATAACATACCTGTGACATCACATGAAATGCTGTAGTCAATTTGACATCATGGGGCAGAGAAGACAGAGTTGGAAATC  
GTATCCAATATTGTATGGACACTGTAGTGACTTTACGACATCAGTTAAACTGTAGTACCCCGTCTCTTCTGTCTCAACCTTTAG

2805

LRRK2

LRRK2-201

AGAATTTTATAGACATCTAATGTGATAATAACATTAGTAGCTGAGATGCGGTAAGCTCTTTGACCATGTTTTCCAGAATGGATAAG  
TCTTAAAATATCTGTAGATTACACTATTATTGTAATCATCGACTCTACGCCATTTCGAGAAACTGGTACAAAGGTCTTACCTATTC

2890

LRRK2

LRRK2-201

ACCTGGTTGAGATGAAAACCTTACACTGTTTTTTTATATTAATCTTTTTACTCTTTGCCTGAAATGTCCAACCTCTAGTTGCTC  
TGGACCAACTCTACTTTTTGAAATGTGACAAAAAATATAATTGATAGAAAATGAGAAACGGACTTTACAGGTTGAGATCAACGAG

2975

LRRK2

LRRK2-201

GTGATTGCGTGGGTCAGTCTCCAGAAGGTTGGACTTTAATATTACCCGTCATCTTTTTCCAAGACAAAATTGTATTCATTCTAACT  
CACTAACGCACCCAGTCAGAGGTCTTCCAACCTGAAATTATAATGGGCAGTAGAAAAGGTTCTGTTTTAACATAAGTAAGATTGA

3060

LRRK2

LRRK2-201

CTTAGCCCCAAATTTTCTTTTTAACCTTAATATCTAACATGATTAGGTTTATGGTAAATTATATACTCAAACAGAAGAAGAGAC  
GAATCGGGGTTTTAAAAGAAAAAATTGGAATTATAGATTGTAATAATCCAAATACCATTTAATATATGAGTTTGTCTTCTTCTCTG

3145

LRRK2

LRRK2-201

TAATAGCAAGCAAAAAGTCTTATATTTTTCATTTGTTTTTCATCCAAAAAGTAGAAAAATTTTTCCAAACATTGGGAAACATTTTGT  
ATTATCGTTCGTTTTTTCAGAATATAAAAAGTAAACAAAAGTAGGTTTTTCATCTTTTATAAAAAGGTTTGTAAACCTTTGTAAAATCA

3230

LRRK2

LRRK2-201

CAGAAAAATAAATATCAATGATAAATAGAATAGAGAAAAATTTTAAAGCTGAGCTAAACCTCTATGTGGTTTTAGGAAAAATCAA  
GTCTTTTTTATTTATAGTTACTATTTATCTTATCTCTTTTTTAAAATTTGACTCGATTTGGAGATACACCAAAAATCCTTTTGTAGTTT

3315

LRRK2

LRRK2-201

PCR Forward Primer

aagctgagctaaacctctatgtgg

ACTATTAATAAATGGCAAGTACAACAAAATCCCATCAATTCTTATTTAACATACTTACATTTTGAAGTAGTTAAAATATTCATA  
TGATAATTTATTTACCGTTCATGTTGTTTTAGGGTAGTTAAGAATAAATTGTATGAATGTAAAACCTTTATCAATTTTATAAGTAT

3400

LRRK2

LRRK2-201

TGATCATTGAGAGAATTCAGAATTGCCTTTAAGTAATTGTTTCACATATACAAAAGAAAAGTCTCCAAAATTGGGTCTTTGCCTG  
ACTAGTAACTCTCTTAAGTCTTAACGGAAATTCATTAACAAGTGTATATGTTTTCTTTTCAGAGGTTTTTAACCCAGAAACGGAC

3485

LRRK2

LRRK2-201

AGATAGATTTGCTTTAAAATTGAAATCATTCACTTATCAGATTTGACCCTTTTTAAAGCATAACTTTGCTGTGTAATATTAGAC  
TCTATCTAAACAGAATTTTAACTTTAGTAAGTGAATAGTCTAAACTGGGAAAAAATTTTCGTATTGAAACGACACATTATAATCTG

3570

LRRK2

LRRK2-201

Sanger Sequencing Primer

aagggacaaagtgagcacag

TTATATGTTTTGATTTCTTCTACAATATCTCTTAACTTTAAGGGACAAAGTGAGCACAGAATTTTTGATGCTTGACATAGTGGA  
AATATACAAAACCTAAAGGAAGATGTTATAGAGAATTGAAATTCCTGTTTCACTCGTGTCTTAAAAACTACGAAGTGTATCACCT

3655

LRRK2

LRRK2-201

CATTTATATTTAAGGAAATTAGGACAAAAATTATTATAATGTAATCACATTTGAATAAGATTTCTGTGCATTTTCTGGCAGATA  
GTAATATAAATTCCTTTAATCCTGTTTTAATAATATTACATTAGTGTAACCTTATTCTAAAGGACACGTAAAGACCGTCTAT

3740

LRRK2

LRRK2-201

Y  
LRRK2-201

gRNA Protospacer

ATT

CCTCCACTCAGCCATGATTATATACCGAGACCTGAAACCCCACAATGTGCTGCTTTTACACTGTATCCCAATGCTGCCATCATT  
GGAGGTGAGTCGGTACTAATATATGGCTCTGGACTTTGGGGTGTTACACGACGAAAAGTGTGACATAGGGTTACGACGGTAGTAA

3825

LRRK2

LRRK2-201

1985 1990 1995 2000 2005 2010  
L H S A M I I Y R D L K P H N V L L F T L Y P N A A I I

ENSE00003681812

LRRK2-201

Donor Template WT -> SNV

Protospacer Sequence

ATAGGGTTACGACGGTAGTAA

Donor Template WT -> SNV

gRNA Protospacer

GCAAAGATTGCTGACTA

GCAAAGATTGCTGACTACGGCATTTGCTCAGTACTGCTGTAGAATGGGGATAAAAAACATCAGAGGGGCACACCAGGTAGGTGATCAG
CGTTTCTAACGACTGATGCCGTAACGAGTCATGACGACATCTTACCCCTATTTTTGTAGTCTCCCGTGTGGTCCATCCACTAGTC

3910

LRRK2

LRRK2-201

A K I A D Y G I A Q Y C C R M G I K T S E G T P G R
ENSE00003681812
LRRK2-201

Donor Template WT -> SNV

Protospacer Sequence PAM SNV

Silent SNV

CGTTTCTAACGACTATGCCGTAACGAGTCATGACGACATCTTACCCCTATTTTTGTAGTCTCCCGTGTGGTCCatcca

Donor Template WT -> SNV

GTCTGTCTCATAATTCTATCTTCAGGATGGATAACCACTGACCTCAGATGTGAGTTTCAGAAGAGTCAAAAAGGAAAAACAGAGTCTA
CAGACAGAGTATTAAGATAGAAGTCTACCTATTGGTGACTG6AGTCTACACTCAAGTCTTCTCAGTTTTCTTTTGTCTCAGAT

3995

LRRK2

LRRK2-201

TCACATTGTGAACAGAGGTTTTATTTTTGTGAAAAAATGCAAGCATCACATTGTGATTTTTATCATTGTATTTTTGTAGGAAAAAAC
AGTGTAACACTTGTCTCCAAATAAAACACTTTTTTACGTTTCGTAGTGTAACACTAAAAATAGTAACATAAAACATCCTTTTTTTTG

4080

LRRK2

LRRK2-201

AATTGATGTAATTTTTTCAGGGCAAAAACCTGAATAAAAAAGAAGAGAATGTTTGATATCAAGTTATATGTTTTAAAGTTAGATTTGT
TTAACTACATTA AAAAGTCCCGTTTTTTGACTTATTTTTCTTCTCTTACAAACTATAGTTCAATATACAAAATTTCAATCTAAACA

4165

LRRK2

LRRK2-201

AGATTCTTTAGATACTCTAGAGGTCATAAAAAAGTAACAGCAAAAACCTTTAGTCTAGGTATTGTTGGCACTTGTGAGGCAAAATCAA
TCTAAGAAATCTATGAGATCTCCAGTATTTTTTCATTGTCGTTTTTGAATCAGATCCATAACAACCGTGAACACTCCGTTTAGTT

4250

LRRK2

LRRK2-201

ccgtgaacactccgtttagtt
PCR Reverse Primer

ATTCAGGTCCACAAATTTCTTTTTCATAATTCTGAAACCCAAAAGAACTCTGAAAATCCCAAGATTTTTTAAAAAATGACTAATTTG
TAAGTCCAGGTGTTTAAGAAAAAGTATTAAGACTTTGGGTTCTTGAGACTTTTAGGGTTCTAAAAAATTTTTTACTGATTAAC

4335

LRRK2

LRRK2-201

taa

PCR Reverse Primer

GTGTCAAAACCTAAGCAAGCTGACTTGTGCTTATTACAATCTTTATTTCTCATGCTCAGTGTGAATATGCATACATTTTTGCTGC
CACAGTTTTGGATTTCGTTTCGACTGAACAACGAATAATGTTAGAAAATAAAGAGTACGAGTCACACTTATACGTATGTA AACGACG

4420

LRRK2

LRRK2-201

AGAAATATATACATGTTTGGAGTACAGGGGGCTGGCCGTGACCCTACTGAGGGTTTCTGTACACATCACTGTCTACCCTGTGGAAT  
TCTTTATATATGTACAAACTCATGTCCCCCGACCGGCACTGGGATGACTCCCAAAGACATGTGTAGTGACAGATGGGACACCTTA

4505

LRRK2

LRRK2-201

CTTACCTCCCTTTCTTAGTTCCCAATCCTGAAAAGCAGTTATGGGGCCAGTGCTCTGTACAGACATGTTGTCTCAGACATCAGTT  
GAATGGAGGGGAAAAGAATCAAGGGTTAGGACTTTTCGTCAATACCCCGGTCACGAGACATGTCTGTACAACAGAGTCTGTAGTCAA

4590

LRRK2

LRRK2-201

TGAGCAGGAAGTAAATCATTAGGGGTTGGCATTGTTTGGAGTGTGGGGAACACTCTATCTTTAGGGAAACTTTATATAGTTAG  
ACTCGTCCTTCATTTAGTAAATCCCAACCGTAAACAAACCTCACACCCCTTGTGAGATAGAAATCCCTTTGAAATATATCAATC

4675

LRRK2

LRRK2-201

TTATTTGTAAGTAAAATTACAGGTGGCTATACATCATCTTGCTGATTGCAACTCAATTAATCACCGTGCCTGGCACAGAAGAAA  
AATAAACATTCATTTTAATGTCCACCGATATGTAGTAGAACGACTAACGTTGAGTTAATTTAGTGGCACGGACCGTGTCTTCTTT

4760

LRRK2

LRRK2-201

ATATGCTACAGGATATCTCACTAGGGAAAAGGTTCTAGTTTCGTTTCTGCGCACTCAACTTTTGTACTTAGATAAGCAAATGGCC  
TATACGATGTCCTATAGAGTGATCCCTTTTCCAAGATCAAGCAAAGGACGCGTGAGTTGAAAACATGAATCTATTCGTTTACCGG

4845

LRRK2

LRRK2-201

CCAGATTCCAATGCCTGGTTTTATTTTTGCTCCAATACATATATACTCTTTTTGTTTTGGATAGTTACATTTTAGAAGTAGACTG  
GGTCTAAGGTTACGGACCAAAATAAAAACGAGGTTTATGTATATATGAGAAAAACAAACCTATCAATGTAAATCTTCATCTGAC

4930

LRRK2

LRRK2-201

TGTATTCTCATAAACACTTCAAAGTGTATGTTCTGGCTGAGAGTGTCTCTGTGTTGTTCAATAATAATAAGACTAATTATCATTT  
ACATAAGAGTATTTGTGAAGTTTCACATACAAGACCGACTCTCACAGAGACACAACAAGTTATTATTATTCTGATTAATAGTAAA

5015

LRRK2

LRRK2-201

TTTGAGTACCTGCTGTGCGTCAGGCCAGTGCCACGTATATTAGAGACAAGATCTCTTATCCTCATGCCAGGGCTGGAAAGTTAGC  
AAACTCATGGACGACACGCAGTCCGGGTCACGGTGCATATAATCTCTGTTCTAGAGAATAGGAGTACGGTCCCACCTTCAATCG

5100

LRRK2

LRRK2-201

TATTAGTTTCTCATTTGCCAAATGAGAAAACCTGAGGCTCAGGGAGATTATGTAACCTGCAGAATATCACTCAGTAATTGGCCAAG  
ATAATCAAAGAGTAAACGGTTTACTCTTTTACTCCGAGTCCCTCTAATACATTGAACGTCTTATAGTGAGTCATTAACCGGTTTC

5185

LRRK2

LRRK2-201

ATAAGAATTGAGTCTAAATGAGAACCAGATCCAGAGATATTTGGCTTTAAATTTCTATAGTCTCTCCTAAACCATATGCAACTCTA  
TATTCTTAAGTCAGATTTACTCTTGGTCTAGGTCTCTATAAACCGAAATTTAAGATATCAGAGAGGATTTGGTATACGTTGAGAT

5270

LRRK2

LRRK2-201



ACATGAAGAAGCTTATTTAATCTTCACTATTAATAAAGGTCAAAAACAAAACAACAGAGCCATGAATAGCAAATATTGTCAATGAGA  
TGTACTTCTTCGAATAAATTAGAAGTGATAATTTTTTTCAGTTTTGTTTTGTTGTCTCGGTACTTATCGTTTTATAACAGTTACTCT

5355

LRRK2

LRRK2-201

GGTTTTGGAAAAACAGTCTTAAAGGATGAAATTCCATAGACCTGATATATTTCCACCTGGAAAAAGTGGGCATGGGACAGTGATTT  
CCAAACCTTTTTGTCAGAATTTCTACTTTAAGGTATCTGGACTATATAAAGGTGGACCTTTTTTACCCCGTACCCTGTCATAAAA

5440

LRRK2

LRRK2-201

TCTCTTGAAAGATCTGCTCATTTTTTGTCATGGGACATGAAGGTGGACTGGACCACTCAGTTTCTTCTTTCTGCATCTCCCAACCC  
AGAGAACTTTCTAGACGAGTAAAAACAGTACCCTGTACTTCCACCTGACCTGGTGAGTCAAAGAAGAAAGACGTAGAGGGTTGGG

5525

LRRK2

LRRK2-201

AGTCTTTCTGTTTCATGGGGTGAAAACTGTTGTTGAAGCCTTGCTGCTTAATTGGACAGTGGATCTCTCGGGTCCCTGTGGGCT  
TCAGAAAGACAAGTACCCCACTTTTAGACAACAACCTTCGGAACAGACGAATTAACCTGTCACCTAGAGAGCCCAGGGACACCCGA

5610

LRRK2

LRRK2-201

GTGCGCTTGTAAGCTCTGCTTCTTCACTCTGTGGTCTAGGCCAGCTAGCAGCCAGCTGAGTTCACCTTGGTTCAGACTCAT  
CACGCGAACATGAACTCGAGACGAAGAAGTGAGACACCAGATCCGGTCGATCGTCGGTTCGACTCAAGTGGAAACCAAGTCTGAGTA

5695

LRRK2

LRRK2-201

GGCCTTTTCATTTTCAGTATCTGACTTCTGCTGTTTTGCTGAAAACTGTCTAAAATGTAATATCCATCTGATTCTTCATAACCAAGC  
CCGGAAAAGTAAAAGTCATAGACTGAAGGACCAAAAACGACTTTTGGACAGATTTTACATTATAGGTAGACTAAGAAGTATGGTTTCG

5780

LRRK2

LRRK2-201

CACACAATTCTTCTGATCCCTTTTAATCTCCAATATTGAATGGTGGTAACATAAATATGGAGACAGATCATGTCAGAAACCCAG  
GTGTGTTAAGAAGGACTAGGGAAAATTAGAGGTTATAACTTACCACCATTGTATTTATACCTCTGTCTAGTACAGTCTTTGGGTC

5865

LRRK2

LRRK2-201

GGCCTAATCTTTTTCTTTTCTGCTACTCTTCTCACAGGCTGCTTAGTACTTTGTAAGCTTTTTTTTTTTTTTCTGGCTGTAACCTA  
CCGGATTAGAAAAGAAAAGACGGATGAGAAGAGTGTCGACGAATCATGAAACATTGAAAAAAAAAAAAAAAAAGACCGACATTGGAT

5950

LRRK2

LRRK2-201

GATTTTCTCTTTATCATTACTCTATTTATTATTGTTAGAGCACTTCTGATTATCTCAGCCCTAAACTCTGCCTCCAATTTTAAAT  
CTAAAAGAGAAATAGTAATGAGATAAATAATAACAATCTCGTGAAGACTAATAGAGTCGGGATTTGAGACGGAGGTTAAAATTTA

6035

LRRK2

LRRK2-201

AACAATAACTCCCCTCCTGCTAATACTGCTACTACTACTACCATCACCAAACCTTTTTCTTCCCAAAGCAGTTCTGTTTGGGAA  
TTGTTATTGAGGGTGAGGACGATTATGACGATGATGATGATGGTAGTGGTTTGA AAAAAGAGGGGTTTCGTCAAGACAAAACCTT

6120

LRRK2

LRRK2-201

GGAAACAGTTCCTCTCATACAATTTTCAGTTATCTTCTTGTCTTTTCCGTTTAATGAATCTTCCTGTTAATGTTACATCTTTTAA  
CCTTTGTCAAGGGAGAGTATGTTAAAGTCAATAGAGAAGAACAGAAAAGGCCAAATTACTTAGAAGGACAATTACAATGTAGAAAATT

6205

LRRK2

LRRK2-201

CATGGAACTTCTAGAGAAACAAAAGACGATGGATTTGTTAAACCTTTTGGGTGTATTTTTATACTAACTCTTACTGCAGCGTGT  
GTACCTTTGAAGATCTCTTTGTTTTCTGCTACCTAAACAATTTGGAAAACCCACATAAAAAATATGATTGAGAATGACGTCGCACA

6290

LRRK2

LRRK2-201

GCATTATGAGTGTAGGTCCATTACGGCTGTATTAGGAGCAGAACCTTCCAGAGCATGAGCGATGTGCTGGGCTTGTGCTTAGCTC  
CGTAATACTCACATCCAGGTAATGCCGACATAATCCTCGTCTTGGAAAGGTCTCGTACTCGCTACACGACCCGAACACGAATCGAG

6375

LRRK2

LRRK2-201

TATCCATGAGTTAAGTATCTCAATCCTTAG  
ATAGGTACTCAATTCATAGAGTTAGGAATC

3'











6405

5'

LRRK2

LRRK2-201

Feature	Location	Size		Type
<b>LINC02471</b>	1 .. 6405	6405 bp	■ →	gene
/note	= gene <a href="#">ENSG00000223914</a> lncRNA			
<b>LRRK2</b>	1 .. 6405	6405 bp	■ →	gene
/note	= gene <a href="#">ENSG00000188906</a> Protein coding			
<b>LINC02471-202</b>	1 .. 6405	6405 bp	■ →	prim_transcript
/note	= primary transcript <a href="#">ENST00000641941</a> lncRNA			
<b>LRRK2-201</b>	1 .. 6405	6405 bp	■ →	prim_transcript
/note	= primary transcript <a href="#">ENST00000298910</a>			
<b>LRRK2-204</b>	1 .. 6405	6405 bp	■ →	prim_transcript
/note	= primary transcript <a href="#">ENST00000430804</a> Nonsense mediated decay			
<b>LRRK2-206</b>	1 .. 6405	6405 bp	■ →	prim_transcript
/note	= primary transcript <a href="#">ENST00000479187</a> Retained intron			
<b>LRRK2-210</b>	1 .. 6405	6405 bp	■ →	prim_transcript
/note	= primary transcript <a href="#">ENST00000679360</a> Nonsense mediated decay			
<b>LRRK2-211</b>	1 .. 6405	6405 bp	■ →	prim_transcript
/note	= primary transcript <a href="#">ENST00000679532</a> Nonsense mediated decay			
<b>LRRK2-213</b>	1 .. 6405	6405 bp	■ →	prim_transcript
/note	= primary transcript <a href="#">ENST00000680018</a> Nonsense mediated decay			
<b>LRRK2-215</b>	1 .. 6405	6405 bp	■ →	prim_transcript
/note	= primary transcript <a href="#">ENST00000680422</a> Nonsense mediated decay			
<b>LRRK2-216</b>	1 .. 6405	6405 bp	■ →	prim_transcript
/note	= primary transcript <a href="#">ENST00000680425</a> Nonsense mediated decay			
<b>LRRK2-217</b>	1 .. 6405	6405 bp	■ →	prim_transcript
/note	= primary transcript <a href="#">ENST00000680453</a> Nonsense mediated decay			
<b>LRRK2-218</b>	1 .. 6405	6405 bp	■ →	prim_transcript
/note	= primary transcript <a href="#">ENST00000680790</a>			
<b>LRRK2-219</b>	1 .. 6405	6405 bp	■ →	prim_transcript
/note	= primary transcript <a href="#">ENST00000681136</a> protein_coding_CDS_not_defined			
<b>LRRK2-220</b>	1 .. 6405	6405 bp	■ →	prim_transcript
/note	= primary transcript <a href="#">ENST00000681696</a>			
<b>LRRK2-201</b>	3738 .. 3898	161 bp	■ →	CDS
/codon_start	= 1			
/note	= coding sequence <a href="#">ENSP00000298910</a>			
/translation	= YLHSAMIIYRDLKPHNVLLFTLYPNAIIIAKIADYGIAQYCCRMGIKTSEGTP 53 amino acids = 6.0 kDa			
<b>LRRK2-218</b>	3738 .. 3898	161 bp	■ →	CDS
/codon_start	= 1			
/note	= coding sequence <a href="#">ENSP00000505335</a>			
/translation	= YLHSAMIIYRDLKPHNVLLFTLYPNAIIIAKIADYGIAQYCCRMGIKTSEGTP 53 amino acids = 6.0 kDa			
<b>LRRK2-220</b>	3738 .. 3898	161 bp	■ →	CDS
/codon_start	= 1			
/note	= coding sequence <a href="#">ENSP00000505871</a>			
/translation	= YLHSAMIIYRDLKPHNVLLFTLYPNAIIIAKIADYGIAQYCCRMGIKTSEGTP 53 amino acids = 6.0 kDa			
<b>Donor Template WT -&gt; SNV</b>	3805 .. 3904	100 bp	■ ⇐	misc_feature

Feature	Location	Size			Type
✓ <b>Protospacer Sequence</b>	3823 .. 3842	20 bp			misc_feature
✓ <b>Silent SNV</b>	3840 .. 3840	1 bp			misc_feature
/note	= WT = C Silent SNV = T				
✓ <b>PAM</b>	3843 .. 3845	3 bp			misc_feature
✓ <b>SNV</b>	3848 .. 3848	1 bp			misc_feature
/note	= WT = T SNV = C				

Primer	Length	Binding Sites	Tm	Date Added
✓ <b>PCR Forward Primer</b>	24-mer	3276 .. 3299	59°C	Mar 1, 2023
/sequence = aagctgagcctaacctctatgtgg 46% GC / 7376.9 Da				
✓ <b>Sanger Sequencing Primer</b>	20-mer	3611 .. 3630	57°C	Mar 1, 2023
/sequence = aaggacaaagtgagcacag 50% GC / 6233.1 Da				
✓ <b>Donor Template WT -&gt; SNV</b>	100-mer	3805 .. 3904	75°C	Mar 1, 2023
/sequence = acctacCTGGTGTGCCCTCTGATGTTTTTATCCCCATTCTACAGCAGTACTGAGCAGTGCCGTAATCAGCAATCTTTGCAATGATGGCAG CAATGGATA,740.0 Da				
✓ <b>gRNA Protospacer</b>	20-mer	3823 .. 3842	50°C	Mar 1, 2023
/sequence = ATTGCAAAGATTGCTGACTA 35% GC / 6140.1 Da				
✓ <b>PCR Reverse Primer</b>	24-mer	4230 .. 4253	59°C	Mar 1, 2023
/sequence = aatttgattgcctcacaagtgcc 42% GC / 7302.8 Da				