



INK2J00017_PARK7_L166P_H09_AB
 31,215 bp

5'

CCGGAAGTGGACCTACGTCATGCAGGTCAGTCGGTAGGTTTCCGGCGCCACGCGCCCCGTGGGAGTTGTGTCTGGTGGCCACGC
GGCCTTACCTGGATGCAGTACGTCCAGTCCAGCCATCCAAGGCGCGGGTTCGCGGGGCACCCCTCAACACAGACCACCGGGTGC

85

PARK7

TGGGGGGGGGCTCTTACACTGGTGGGCGCAGAGGCGAAGCCGTTCCAGGGCCCTCACAGAACTCGGTGTCAGAATTTCCCC
ACCCCCCGAGAAGTGTGACCACCCGCGTCTCCGCTTCGGCAAGGGTCCCGGGGAGTGTCTTGAGCCACAGTCTTAAAGGGG

170

PARK7

CTTGACCAGCGCCGCTCAAATGTCAGGGCTCGCCACTCTTCTCCGGTCTCGCCGACATAACCTTTTGGGGCTCCAGAGGGG
GAACGTGGTTCGCGGCGGAGTTTACAGTCCCGAGCGGGTGAGAAGAGGGCCAGAGCGGCTGTATTGGAAAACCCCGAGGTCTCCCC

255

PARK7

AAATTTGCCGTTTCTGCCGGACCGCTCTAGAGCGTGCCTGAACCCGGCCTTTATGGGATGTTGACAGCTACGTTTATTCAGTGCC
TTTAAACGGCAAAGACGGCCTGGCGAGATCTCGCACGGACTTGGGCCGGAAATACCTTACAACCTGTCGATGCAATAAGTCACGG

340

PARK7

CCAGAGGCCTTCTTTATGCCAGTAACTACAATTTAAATTCCTTCTCTGCTTCATTTTGTAGTCGTCTGGTGAATTTGACGTGAG
GGTCTCCGGAAGAAATACGGGTCATTGATGTTAAATTTAAGGAAGAGACGAAGTAAAACATCAGCAGACCCTTAAACTGCACTC

425

PARK7

AAATAAGATTAATAAGGAATAAGAAATAGTTGAAATCACATTGTAGAGTTCTGCAAAATGTAATAATTAATTTATAGCAATAA
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510

PARK7

AGCAGGCTGTCAAATAACAGAGGATGAAAGCAGGATAATACTTGGTCAGAACCTGCTGTATGCCAGGGGCTGTGACAGATGCTGG
TCGTCCGACAGTTTATTGTCTCCTACTTTCTGTCCTATTATGAACCAGTCTTGGACGACATACGGTCCCCGACACTGTCTACGACC

595

PARK7

GGATTTCAGCAACCACCAAGACAAGAAGGTTCTTCCGGCGTTCACAGGACTAGGGGAAGACACAATAAATAACTAAAGGCAAAATG
CCTAAGTCGTTGGTGGTTCTGTTCTTCCAAGAAGGCCGAAGTGTCTGATCCCTTCTGTGTTATTTATTGATTTCCGTTTTAC

680

PARK7

CTAGAATGATGCGCTCTCTCTCAAGATGAAATATAGAACATGATTTATTTTTATTTTTATTTTTATTTTTATTTTTGAGACGGAGTT
GATCTTACTACGCGAGAGAGAGTTCTACTTTATATCTTGTACTAAATAAAAAATAAAAAATAAAAAATAAACTCTGCCTCAA

765

PARK7

TCGCTCTTGTTGCCAGGCTGGAGTGCAATGGTGCATCTAGGCTCACTGCTACCTCCGCTTCCGGGTTCAAGCGATTCTCCTG
AGCGAGAACAACGGGTCCGACCTCACGTTACCACGCTAGATCCGAGTGACGATGGAGGCGAAGGGCCCAAGTTCGCTAAGAGGAC

850

PARK7

CTTCAGCCTCCCGAAAAGTAGCTGGGATTACAGGTGCCTGCCACTACGCCGGCTAATTTTTTTGTATTTTTAGTAGAGACAGGGT
GAAGTCGGAGGGCTTTTCATCGACCTAATGTCCACGGACGGTGATGCGGGCCGATTAATAAAAAACATAAAAAATCATCTCTGTCCCA

935

PARK7

TTCCCATGTTGGCCAGGGTGGTCTGGAACCTCTAACCTCAGGTGATCCACCCGCTCGGCTTCCCAAAGTGCTGGGATTACAGG
AAGGGGTACAACCGGTCCACACAGACCTTGAGGATTGGAGTCCACTAGGTGGGCGGAGCCGAAGGGTTTTACGACCTAATGTCC

1020

PARK7

TGTGAGCCACTGCGCCAGCCGAGAACGATTTATTTTAGAGTGTTTACTTAATGAGATGCCTAATGTAAGAGTGACCCATGGAAA
ACACTCGGTGACGCGGGTCGGCTCTTGCTAAATAAAATCTCACAAATGAATTAATCTACTGATTACATTCTCACTGGGTACCTTT

1105

PARK7

3'

AATAATAACTTGGCAGCAGTTTTTTTTTGGCCGCTAAGATCAGGACAATTCTGAGGGGAGTTTTGTTTTGGAACGATGACCAGATGG
TTATTATTGAACCGTCGTCAAAAAAAAACGGCGATTCTAGTCCTGTTAAGACTCCCCTCAAAACAAAACCTTGCTACTGGTCTACC

1190

PARK7

CCATGGGTGGCTATTACTAACACTGTCAATGCCATTTCTCTGTTATTGCCTTGTGACCTCCACAGGCAGAGCAATATTTTCATCAT
GGTACCCACCGATAATGATTGTGACAGTTACGGTAAAGAGACAATAACGGAACTGGAGGTGTCCGCTCTCGTTATAAAGTAGTA

1275

PARK7

TAAAAGTTGCAACTGCTATGAGAAGCTACGTTCCCTGAAAACAGAGTTTTTGGCCAGGAATAGTTGCTTATGCCTGTAGTTCCAG
ATTTTCAACGTTGACGATACTCTTCGATGCAAGGAACTTTTGTCTCAAAAACCGGTCCTTATCAACGAATACGGACATCAAGGTC

1360

PARK7

CTACTTGGGAGGCTGAGGCAGGAGGATCCCTTAAGCCCAGGAGGTGGAGGCCAACCTGGGCAACATAGCCAGGCCCGGTCTCTAA
GATGAACCTCCGACTCCGTCCTCCTAGGGGAATTCGGGTCTCCACCTCCGTTGGACCCGTTGTATCGGTCCGGGCCAGAGATT

1445

PARK7

AAATGAAATAAAACCGGCAGTTTTCTTCCTTCGTACCTCCCGCAGTGCATAAAGAGTTGTCAAATGTTGAGTTAAAAAGGTAGTG
TTTACTTTATTTTGGCCGTCAAAGAAGGAAGCATGGAGGGCGTCACGTATTTCTCAACAGTTTACAACCTCAATTTTTCCATCACC

1530

PARK7

ATAGGATGGGGCGGTTCTGCCTGGAAATTGGAGACTGAACTAGGAAGTGTCTTCGTTGTCAGTACTACAGCAGTATTTTTGGTA
TATCCTACCCCGCAAGACGGACCTTTAACCTCTGACTTGATCCTTCACAGAAGCAACAGTCATGATGTCGTCATAAAAAACCAT

1615

PARK7

AATGGTTAATTTTTGGTTTTATCTTATGAATGTGTGATGAGAAATATGCATGAACTATAGAGTGTCTTAAGTGTAAGTACTGACTT
TTACCAAATTA AAAAACC AAAATAGAACTTACACACTACTCTTTATACGTACTTGATATCTCACAGAATTCACATTGACTGAA

1700

PARK7

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AATTATAACTGTCATATAACCACCCATCTCACACTTTAAATCGTAGTCTTTAGACTTAAACTGGTTCTGACGTCCTGGAATATGTC

1785

PARK7

TCATTTACCCCTTCTGGACCTCAACCTTCACATCCGTGGAAGGAAAATTGTAACACCTGCCAGGAAGTCAATATATAAGGTCTAA
AGTAAAGTGGGAAGACCTGGAGTTGGAAGTGTAGGCACCTTCTTTTAAACATTGTGGACGGTCCTTCAGTTATATATTCCAGATT

1870

PARK7

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1955

PARK7

TACTTGCTTCTGGGGAGCAGGGCTGAGGGGAAGGACTGAGTTAGAGGGCTGCTGCTGCATGGATTCACTACTGCTCTGTAGCAAA
ATGAACGAAGACCCCTCGTCCCGACTCCCCTTCTGACTCAATCTCCCGACGACGACGTACCTAAGTGATGACGAGACATCGTTT

2040

PARK7

ACCTGGCTGCTACAGTTCACCGTTGGGTTGTAGTAACTCTGTTTCAGGTTGTTAGTTGTGCAGGTTGGCTAGGGCCGCTCTGTT
TGGACCGACGATGTCAAGTGGCAACCCAACATCATTGAGACAAAGTCCAACAATCAACACGTCCAACCGATCCCGGCCGAGACAAG

2125

PARK7

CACATGTTTCACTTCTGAAACCCAGGTTGAGGGAAACAGCAGCAACTTGCTGGGGGAAAAGCTCTTCTTACAGCAATTCAAAAGTAG
GTGTACAAGTAAGACTTTGGGTCCAACCTCCCTTGTCTGTCGTTGAACGGACCCCTTTTTCGAGAAGGATGTCGTTAAGTTTTTCATC

2210

PARK7

AAGAGCACAAACCTAATAATCAGGGCAGACTTTTTCAAGGCTTTGTTACAGGTGTCTGTTAACATTCCATGGACCAAAAACAAGGCCA
TTCTCGTGTGGATTATTAGTCCCCTCTGAAAAGTTCCGAAACAATGTCCACAGACAATTGTAAGGTACCTGGTTTTGTTCCGGT

2295

PARK7

AACCCAAAATCAAGGGACAGGAAGTAGACTCCACCCATGCAGGTGGAAGGGGAGTACTATTTCTGAAAAATAATCCAATCTGCC
TTGGGTTTTAGTTCCTGTCTTCATCTGAGGTGGGTACGTCCACCTTCCCCTCACTGATAAAGACTTTTTATTAGGTTAGACGG

2380

PARK7

GCAAGTAATACTTGACTTTTTAAACTGTGCAGTGTATTTCACTTGGTAAGAATTAATGCTGACTGTGGTCCATTTTCAGGTCTTGA
CGTTCATTATGAACTGAAAAATTTTGACACGTACATAAGTGAACCATTCTTAATTACGACTGACACCAGGTAAAGTCCAGAACT

2465

PARK7

TGGTGATGCGTATGTCTCAGGAATGTTAACTCCAGTTCATTCTCTCTGGCTCTCACTGCTGAAACATCTGTCATCTTTAGGCTAT
ACCACTACGCATACAGAGTCTTACAATTGAGGTCAAGTAAGAGAGACCCGAGAGTGACGACTTTGTAGACAGTAGAAATCCGATA

2550

PARK7

CGTGGCTGTCTCATGCTGTAGCAGACCAGGAGCAGGAGCATTGGTGACTCCTTTTAGGAGTTTACCACGGGGCCCGGGCTCGGTG
GCACCGACAGAGTACGACATCGTCTGGTCTCGTCTCGTAACCACTGAGGAAAAATCCTCAAATGGTGCCCCGGGGCCCGAGCCAC

2635

PARK7

GCTCACGCATGTAATCCCAGCACTTTGGGAGGCCGAGGCTGGTGGATCACTTGAGGTCAGGAGTTTGAGACCAGCCTGACCAACA
CGAGTGCGTACATTAGGGTCTGAAACCCTCCGGCTCCGACCACCTAGTGAACCTCAGTCTCAAACCTCTGGTCTGGACTGGTTGT

2720

PARK7

TGGTAAAACCTGTCTCTACTAAAAACACAGAAAATTTAGCTGGGCGTGGTGGTGCTTGCTGTAAACCCAGCTACTCAGGAGTC
ACCATTTTGGGACAGAGATGATTTTTGTGTCTTTTAAATCGACCCGCACCACCACGAACGGACATTGGGGTTCGATGAGTCTCAG

2805

PARK7

TGAGGCAGGGGAATCACTTGAACCCCGGAGGCAGAGGTTGCAGTGAGCTAAGATCATGCCCCACACTCCAGCCTGGGTGACAGA
ACTCCGTCCCCTTAGTGAACCTTGGGGCCTCCGTCTCCAACGTCACTCGATTCTAGTACGGGGGTGTGAGGTCTGGACCCACTGTCT

2890

PARK7

GAGACTCAAAAAAAAAAGTTTACCACGCAGACTGGATCAAAAAAGCCTGTCTTCTTTGGTTTTCTTCCATCTAACTGTATCCCT
CTCTGAGTTTTTTTTTCAAATGGTGCCTCTGACCTAGTTTTTTTCGGACAGAAGAAAACCAAAGGAAGGTAGATTGACATAGGGA

2975

PARK7

CCTTGGTTCTAGAAGCACACATCTGACCACTTGTCTTTCCTCTTCTCTGTCACTTCTGTTTTCCACACTCCTTCACAGCTGCTT
GGAACCAAGATCTTCGTGTGTAGACTGGTGAACAGAAAGGAGAAAGAGACAGTAAGGACAAAAGGTGTGAGGAAGTGTGACGAGAA

3060

PARK7

CCTTTGCAAATAGCCAAAAGTGAAGTCATTCCAGAACTCCTAAAAGTTTCTTCTTAAATGTCATATGATTAAGACATTTTCAGAC
GGAACGTTTTATCGGTTTTCACTTCAGTAAGGTCTTGAGGATTTTTCAAAGAAGAATTTACAGTATACTAATTTCTGTAAAGTCTG

3145

PARK7

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AAAACGTGTTCAAGTCACAAGTAGTTAATAAGTGTAAAAAATAAAAAAAAAAATCTCTGTGTGTCAGAGTGAGACAGTAGGTCGGAC

3230

PARK7

GAGTGCAGTGGCATGAGATCATGACCCACTGCAGCCTTGACCTCCTGGGCTCAAGTGATTCCTCCCGCTGCGCTGTCAGCCTCTCA
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3315

PARK7

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TCATCGACCCTGGGTATCCGCACATTAATAATTTTTAAAAAACATCTCTGTCCCAGAACGGTACAACAGGTCCGACCAGGGGTTGA
PARK7 >

CCTGGGCTCAAACAATCCTCCCGCCTCGGCCTCCAGAGTGTGGGATGAGACACCCCGCACAGCTCCAATTTTTAAAAATTAAT 3485

GGACCCGAGTTTGTAGGAGGGCGGAGCCGGAGGGTCTCACAAACCCTACTCTGTGGGGCGTGTGCGAGGTTAAAAATTTAATTTA
PARK7 >

AAAATAACACACTCACCATCATTGTAAGAATCACATGAAATATACCAAAGTGCTTTGTAAACTAACAAAAAATTTATTTCTTGAA 3570

TTTTATTGTGTGAGTGGTAGTAACATTCTTAGTGTACTTTATATGGTTTTACGAAACATTTGATTGTTTTTTAAATAAAGAAGCTT
PARK7 >

ATAAATGTGGCCAGGTGCAGTGGCTCACAACCTGTAATCCCAGCACTTTGGGAGGCCGAGGTGGGCAGATCACTTGAGGTCAGGAG 3655

TATTTACACCGGTCCACGTCAACGAGTGTGACATTAGGGTCGTGAAACCCTCCGGCTCCACCCGTCTAGTGAACCTCAGTCCCTC
PARK7 >

TTTGAGACCAGTTTGGCCAACATGGTGAAACCCCGTCTCTAATAAAAAATACAAAAATTAGTTGGGCATGATGGTGCACGCCTGTA 3740

AAACTCTGGTCAAACCGGTTGTACCACTTTGGGGCAGAGATTATTTTTATGTTTTTAATCAACCCGTACTACCACGTGCGGACAT
PARK7 >

GTCCCAGCTACTCGGGAGACTGAGGTACGAGAATTGCTTGAACCTGGGAGACAGAGGTTGCAGTGAGCCGAGATGGTGCCACTAC 3825

CAGGGTCGATGAGCCCTCTGACTCCATGCTCTTAACGAACTTGGACCCTCTGTCTCCAACGTCACTCGGCTCTACCACGGTGATG
PARK7 >

ACGCCAGCCTGGATGACAGAGCAAGACTCTGTCTCAAAACAAAAACAAAAACAAAAACAAAGAAAAATAAACGTGATTTTTTTTTTT 3910

TGCGGTCGGACCTACTGTCTCGTTCTGAGACAGAGTTTTGTTTTTGTTTTTGTTTTGTTTTCTTTTATTTGCACTAAAAAAAAAAA
PARK7 >

TTTTTGAGACAAGAGTCTCGCTCTGTCACCCAGGCTGGAGTGTAGTGGTGCATCTCAGCTCACTTCAGCCTCCGCCTCCCAGGT 3995

AAAAACTCTGTTCTCAGAGCGAGACAGTGGGTCCGACCTCACATCACCACGCTAGAGTCGAGTGAAGTCGGAGGCCGAGGGTCCA
PARK7 >

TCAAGCAATCCCCTGCTTCAGCCTCCCGAGTAATTGGGACTACAGGTGCAAGCCACCATGCCAGCTAATTTTTGTATTTTTAG 4080

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PARK7 >

TAGAGACCGGGTTTACCATGTTGGCCAGGATGGTCTCGATCTCTTGACCTCGTGATCTGCCACCTTGGCCTCCCAAAGTGCTG 4165

ATCTCTGGCCCAAAGTGGTACAACCGGTCCTACCAGAGCTAGAGAAGTGGAGCACTAGACGGGTGGAACCGGAGGGTTTTACGAC
PARK7 >

GGATTACAGGCACGCACCACCGCGCCTGGCCAGAAACGCGATTTTAATATCTAAATTGAAACCTTAAAAACACTGATGTATTTAG 4250

CCTAATGTCCGTGCGTGGTGGCGCGGACCGGTCCTTTCGCTAAAAATTATAGATTTAACTTTGGAATTTTTGTGACTACATAAATC
PARK7 >

GCCAGGTGCTGTGGCTCACACCTGTAATCCCAGCACTGTGGGAGGCCGAGGTGGGCAGATCACTTGAGGTCAGGAGTTTGAGACT 4335

CGGTCCACGACACCGAGTGTGGACATTAGGGTCGTGACACCCTCCGGCTCCACCCGTCTAGTGAACCTCAGTCCCTCAAACCTCTGA
PARK7 >

AGCCTGGCCAACATGGTGAAAGCTCATCTCTACTAAAAATACAAAAATTAGCCAGGCATGATGGCAGGTGCCTGCAATCCCAGCT 4420

TCGGACCGGTTGTACCACTTTTCGAGTAGAGATGATTTTTATGTTTTTAATCGGTCCGTAATACTCCGTCACGGACGTTAGGGTTCGA
PARK7 >

ACTCTAGAGGCTGAGGTGGGAGAATTGCTTGAACCTGGGAGGCGGAGGTTGCAATGAGCTGAGATTGCACCATTGCACTCCAGCC
TGAGATCTCCGACTCCACCCTCTTAACGAACTTGGACCCTCCGCCTCCAACGTTACTCGACTCTAACGTGGTAACGTGAGGTCGG
PARK7

4505

TGGGCAACAGAGCGAGACTCTGTCTCAAAAAAAAAAAAAAAAAAGAAAAGAAAAGAAATTACTAGAAGAAAACACTGGGGGGGGGGG
ACCCGTTGTCTCGCTCTGAGACAGAGTTTTTTTTTTTTTTTTTCTTTTCTTTTCTTTAATGATCTTCTTTTGTGACCCCCCCCCC
PARK7

4590

GGCCAGGCACGGTGGCTCACACCTGTAATCCAGCACTTTGGGAGGCTGAGGCAAGTGGATCACCTGAGGTTAGGAGTTCGAGAC
CCGGTCCGTGCCACCGAGTGTGGACATTAGGGTCGTGAAACCTCCGACTCCGTTACCTAGTGGACTCCAATCCTCAAGCTCTG
PARK7

4675

CAGCCTGGGAAACATGGTGAATCCCTGTCTGGACTAAAAATACAAAAATTAGACAGGCATGATGGAGGGTGCCTGTAATCCAGAT
GTCGGACCCTTTGTACCACTTAGGGACAGACCTGATTTTATGTTTTAATCTGTCCGTAACCTCCACGGACATTAGGGTCTA
PARK7

4760

ACTCGGGAGGCTGAGACAGAGAATCGCTTGAACCCAGGAGACAGTGGTTGCAGTGAGCCAAGATTGCGCCACTGCACTCCAGCCT
TGAGCCCTCCGACTCTGTCTCTTAGCGAACTTGGGTCCTCTGTCAACACGTCACCTCGGTTCTAACGCGGTGACGTGAGGTCGGA
PARK7

4845

AGGCGGCTGAGCGAGACTCCATCTCAAAAAAAAAAAAAAAAAAGAAAAGAAAAGAAAAGAAAACACTGGGGAAATGTTCCAGGGTATT
TCCGCCGACTCGCTCTGAGGTAGAGTTTTTTTTTTTTTTTTTCTTTTCTTTTCTTTTCTTTTGTGACCCCTTTACAAGGTCCCATAA
PARK7

4930

GATCTGGGCAAAGACCTCAAAGCACAGACAACAAAAGCAAAAACAGACAAATGGAATTACATCAAACATAAAAAGTATATGCACAG
CTAGACCCGTTTCTGGAGTTTCGTGTCTGTTGTTTTCGTTTTTGTCTGTTTACCTTAATGTAGTTTGATTTTTTCATATACGTGTC
PARK7

5015

CAAAGGAAACAACAAGCAAAGAGACAACACACAGAATGGGAGAAAATATTTGCAAACATCCATTTGATGAGGGACTAATGACT
GTTTCTTTGTTGTTTTCGTTTTCTGTTGTGTGCTTACCCTCTTTTATAAACGTTTGTAGGTAACACTACTCCCTGATTAAGTGA
PARK7

5100

AGAATATATTAGGAGCTCAATAGCAAGAAAACAATCAGATTTAAAAGTGGGCAAAGATCTGAATAGACATTTCTGAAGAGATAC
TCTTATATAATCCTCGAGTTATCGTTCTTTTGTAGTCTAAATTTTACCCGTTTTCTAGACTTATCTGTAAAGACTTCTCTATG
PARK7

5185

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TTTACCAGTTCTCTATACTTTTTCCCGAGTTACAGTGATTAGTCTCTTTACGTTTATTTCTGTCAATTCTATAGTAGAGTAGGGTC
PARK7

5270

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AATTTTACCAGGAAATAGTTTTTCCCTTATTGTACGACTCTACCTACACTTCTTCTTTGGAGTATGTGACAACCGCTCGTAGAGTT
PARK7

5355

TTAGTGCAGCCACTATGGAAAACAATATGGAATCCTCAGAAGATTAACCTTCTGAGAAATCATAAGTTCTGGAATCATAACTACCA
AATCAGTCCGGTGATACCTTTTGTATACCTTAGGAGTCTTCTAATTGAAGACTCTTTAGTATTCAAGACCTTAGTATTGATGGT
PARK7

5440

TATGATCCAGCAATCCCACTACCGGTATATACCAAAAAGAAAAGGAAGGGCCAGGCACGGTAGCTCACGCCTATAATCCAGCACT
ATACTAGGTCGTTAGGGTGATGGCCATATATGGTTTTTCTTTCTTCCCGGTCCGTGCCATCGAGTGCGGATATTAGGGTCGTGA
PARK7

5525

TTGGGAGGCCGAGGCAGGCAGATCACTTGGGGTCAGGAGTTC AAGACCAGCCTGGCCAACATAGTAAAAACCTGTCTCTACTAAA
AACCCTCCGGCTCCGTCCGTCTAGTGAACCCAGTCTCAAGTTCTGGTCGGACCGGTTGTATCATTTTTGGGACAGAGATGATTT

5610

PARK7

AATACAAAAATTAGCCAGGCATGGTGGCACACACCTGTAGTCTCAGCTACTCGAAAGACTGAGGCACGAGAATTGTTTCAACACA
TTATGTTTTTAATCGGTCCGTACCACCGTGTGTGGACATCAGAGTCGATGAGCTTTCTGACTCCGTGCTCTTAACAAAGTTGTGT

5695

PARK7

GAGGCAGAGGTTGCAGTGAGCCAAGATGGTGCCACTGCACTTCAGGCTAGGCGACAGAGCAAGATGGAGTCTCAAAAAAAAAAAAA
CTCCGTCTCCAACGTCACTCGGTTCTACCACGGTGACGTGAAGTCCGATCCGCTGTCTCGTTCTACCTCAGAGTTTTTTTTTTTTT

5780

PARK7

AAAGAAAAGAAAATCAATATATCAAAGAGATATTTGCACTCCTATGCTTATTGTAGCACTGTTCCACAACAGTCAAAATATGGAATC
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5865

PARK7

AACCAAAATGTTTCATCAATGGATGACTGGATAAAATAAAATGTAATATACACAATGAATACTATTTCAGCCATAAAAAATAATAAA
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5950

PARK7

ATCCTATTTGCAACAACATTGATGGAAGTGGAGGTCATTATGTTAAGTGAAACAAGCCAGGCCAAAGAAAAGACAAGCATCACATGA
TAGGATAAACGTTGTTGTAACCTACCTTGACCTCCAGTAATACAATTCACTTTGTTCGGTCCGTTTTCTTTCTGTTTCGTAGTGTACT

6035

PARK7

TTTCACTCATAAATGGGAAGTTGAAAAGTGGATATCATGAAGATAAGTTGGTGGTTACCAGAGGCCAGGAAGGGTAGCCAGGAGA
AAAGTGAGTATTTACCCTTCAACTTTTTACCTATAGTACTTCTATTCAACCACCAATGGTCTCCGGTCCCTTCCCATCGGTCCTCT

6120

PARK7

AGGGGATGAACAGGGTGATTAATAGGTACAAAAATTGGTAGAAGTGCTGGGCAAGGTGTCAAGAGCCCCAGCATCAGAAAAGTGGT
TCCCTACTTGTCCCACTAATTATCCATGTTTTTAACCATCTTCACGACCCGTTCCACAGTTCTCGGGGTCGTAGTCTTTTACCA

6205

PARK7

CGACTTGCTGGTTGGTAAGAAGAATTTATCGACAACAATATAGGTTTGAAAAAGGAAAAGTTTTATTAGAACGCTGCAGAAGAGTG
GCTGAACGACCAACCATTCTTCTTAAATAGCTGTTGTTATATCCAAACTTTTTCTTTCAAATAATCTTGCAGACGTCTTCTCAC

6290

PARK7

CAGCCTCAGCAAGAGAGAACTGAGCATGCCGCGGTGGATTTTTTCATGTCCCTTTTCGAATGTCTCATTTTTTGCAAATTCATCC
GTCGGAGTCGTTCTCTCTTGACTCGTACGGCGCCACCTAAAAAGTACAGGGAAAAGCTTACAGAGTAAAAAACGTTTAAGTTAGG

6375

PARK7

AAGTTGCGTTCATTTAGCCAGGATCCTTCTAAGCTCATTCAAGAATTTTGGGCTTTAACTATTTCTTTGATTTAACCTGGTACC
TTCAACGCAAGTAAATCGGTCCCTAGGAAGATTTCGAGTAAGTTCTTAAACCCGAAATTGATAAAGGAAAATAAATTGGACCATGG

6460

PARK7

AGGTGCCAACTTTAGATAATAGGGATATCTAATTACTTCTAAATTCCTCAGATAAGGGGCCTGCTTGATGGTCACCAGGTGATCT
TCCACGGTTGAAATCTATTATCCCTATAGATTAATGAAGATTTAAGGAGTCTATTCCCCGGACGAACTACCAGTGGTCCACTAGA

6545

PARK7

GTGCTCTCCTTAAGAGGGAATAAGACCTAGCGTTGGCAGAGTCTGTAGGGTGACTATAGTTAACAGTAATCTGTTGTATATTTT
CACGAGAGGAATTTCTCCCTTATTCTGGATCGCAACCGTCTCAAGACATCCCCTGATATCAATTGTCATTAGACAACATATAAAA

6630

PARK7

AAAATGTTATTATTGAAGAGAGTAAGTGGAAATGTTCCAGTATAAAGACAAATGTTTAAGGTGATAGAGATCTCATTTACCTGA
TTTTACAATAATAACTTCTCTCATTGACCTTACAAGGGTCATATTTCTGTTTACAAATTCACATATCTCTAGAGTAAATGGGACT

6715

PARK7

TTTAATCATTACACATTATATGAAAAGTATCAAAATACCACATGTACCCAGAAAACACATACGTCTCTTACATATCAATAAATACA
AAATTAGTAATGTGTAATATACTTTTCATAGTTTTATGGTGTACATGGGTCTTTTGTGTATGCAGAGAATGTATAGTTATTTATGT

6800

PARK7

ACTTGAGATTATGATGTAATAACATCTGACCAACTTGGTACTTATTAGACTTATGTGCGCAGCACTGCTCTAGTCCTGTGGGTGC
TGAACCTCTAATACTACATTTATGTAGACTGGTTGAACCATGAATAATCTGAATACACGCGTCGTGACGAGATCAGGACACCCACG

6885

PARK7

AGCAGCATCAGGATCGTTAAAGAAAAACAAACAATGCTGAGAAAAAACTCACACCCCTGAGACATCCGGGTGTGAATAAATGCGG
TCGTCGTAGTCCTAGCAATTTCTTTTGTGTTGTTACGACTCTTTTTTTGAGTGTGGGGACTCTGTAGGCCACACTTATTTACGCC

6970

PARK7

CAGAGTCGCCGAGATCGGGAGACCAGGCGTGGGGGAGAGGTCCGGGAGGCCTGGACCAGAGTCCTAACAGACCAGGGCGAAAC
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7055

PARK7

GGGAAGGCGCGCCAGAAAAGGAACAACGCAAAGGGAGCAGGCGTGCACGGAGCGGAACTAAGGAACCCCTCTGACAACCCCACT
CCCTTCCGCGCGGTCTTTTTCTTTGTTGCGTTTTCCCTCGTCCGCACGTGCCTCGCGCTTGATTCTTTGGGGAGACTGTTGGGGTCA

7140

PARK7

CCCTCGGCAGTTCCAGAGACCGGCTCCTCACGGAGGGTGGCGGTAGAGACTGTTAAGCCCCGCGGGCGCCGGGGCAGGCCGGACT
GGGAGCCGTCAAGGTCTCTGGCCGAGGAGTGCCTCCCACCGCCATCTCTGACAATTCGGGGCGCCCGCGGCCCTCCGGCCTGA

7225

PARK7

GTGCCATTCGTGGGGGGTACCATGTGGGACCGAGCCGCCTCACCCAGGGCTGTCCAGCTAGAAACTCCCCGGTGCCACCCCGCC
CACGGTAAGCACCCCCCATGGTACACCCTGGCTCGGCGGAGTGGGTCCCGACAGGTCGATCTTTGAGGGGCCACGGTGGGGGCGG

7310

PARK7

TCAGTCCGAGGTAGACTCGGCCGGACGTGACGCAGCGTGAGGCCAAGGCGGCGTGAGTCTGCGCAGTGTGGGGCTGAGGGAGGCC
AGTCAGGCTCCATCTGAGCCGGCCTGCACTGCGTCGCACTCCGGTTCCGCGCACTCAGACGCGTCACACCCCGACTCCCTCCGG

7395

PARK7

GGACGGCGCGCGTGCGTGCTGGCGTGCGTTCATTTTCAGCCTGGTGTGGGGTGAGTGGTACCCAACGGGCCGGGGCGCCGCGTCC
CCTGCCGCGCGCACGACGACCGCACAGTAAGTAAAAGTCCGACCACACCCCACTCACCATGGGTTGCCCGGCCCGCGGCGCAGG

7480

PARK7

PARK7-201

GCAGGAAGAGGCGCGGGGTGCAGGTCAGCGCCAGCGGGGGCGCGGCGCATGTGTGGGCCGTGGCGCTGGGCGGCGTGGGGGTGCT
CGTCTTCTCCGCGCCCCACGTCCAAGTCGCGGTCGCCCCGCGCGCGTACACACCCGGCACCGCGACCCGCGCACCCCCACGA

7565

PARK7

PARK7-201

GGACGGTGTCCCTGTGCTGGACGGTGTCCCGCTGGCTCAGAACC GGCGCGGGGCCCTGGGTCCGGGGCCGCCCTCGCTTCCGGCCTC
CCTGCCACAGGGACACGACCTGCCACAGGGCGACCGAGTCTTGGCCGCGCCCCGGACCCAGCCCGGCGGGAGCGAAGGCCGGAG

7650

PARK7

PARK7-201

CCAGTCGGGGCCCTGTCGCTGGCGTTGGATTTGACTGACCGCCAGCGTGGTGGCAACGCTGAAGCGTCCAGAATCTTCTGCCTAAC
GGTCAGCCC GGGACAGCGACCGCAACCTAAACTGACTGGCGGTGCGACCACCGTTGCGACTTTCGCAGGTCTTAGAAGACGGATTG

7735

PARK7

PARK7-201

CTCTCGCCGGGCATGGAACCTGGCTAGCCGTTTTATTAAACTCTGTTTTGCGTGGACGGTAAACCCCTCCAGATAATCTGTAAATAGG
GAGAGCGGCCGTACCTTGACCGATCGGCAAAAATAATTTGAGACAAAACGCACCTGCCATTTGGGAGGTCTATTAGACATTTATCC

7820

PARK7

PARK7-201

CTAAAAAAAAATTCGGAACCTCGTTGAGCTGCTGTCGTTGGCAGTGAGAACTCCGCGCAGAGAGACAGATGTAGTTGGGTTGACTT
GATTTTTTTTAAAGCCTTGAGCAACTCGACGACAGCAACCGTCACTCTTGAGGCGCGTCTCTCTGTCTACATCAACCCAACCTGAA

7905

PARK7

PARK7-201

CAGTGAGGGGATTTCCATCTTTCTCAGTCATTAATAAAGTGTTCAGACATTTAACTGTTGACCCCCACACACAATTTTTTTAG
GTCACCTCCCTAAAGGTAGAAAGAGTCAGTAATTTTTTTCACAAGTCTGTAAATTGTGACAACCTGGGGGTGTGTGTTAAAAAATC

7990

PARK7

PARK7-201

TACAGTTATAACTAAGAAAAACAAAAATCCCCTCCAAAAAATTACAAGTTAATTGCGAAAAGACCACATTTAAATTTTTGCCCATGA
ATGTCAATATTGATTCTTTTGTTTTTAGGGGAGGTTTTTAAATGTTCAATTAACGCTTTCTGGTGTAATTTAAAAACGGGTACT

8075

PARK7

PARK7-201

AATTCAGTTTAGTCGTTTTCTCTGAAACAGTGCTTCAAAAAAGACTGTTTCCCCGCATTGTGTGAAATGCAGGAGACCCACGTACT
TTAAGTCAAATCAGCAAAGAGACTTTGTACGAAAGTTTTTCTGACAAAAGGGGCGTAACACACTTTACGTCCTCTGGGTGCATGA

8160

PARK7

PARK7-201

TGTATTTTTAAAAAACCCATTTGCAACATACTATTAAAGTTGGATTTAAGAGAACATGGTAGAAGAAAATCTAAGCAATACTACA
ACATAAAAAATTTTTGGGTAAACGTTGTATGATAATTTCAACCTAAATTCCTTGTACCATCTTCTTTTAGATTGTTATGATGT

8245

PARK7

PARK7-201

CCTTTTAGCACCCCTCATTATGTTTTTCATCTCAGAGCAATTAATACTGCTATACAAATCAACGTTAAGATAACTAACTGCTGCTT
GGAAAATCGTGGGAGTAATACAAAAGTAGAGTCTCGTTAATTTGACGATATGTTTAGTTGCAATTCTATTGATTTGACGACGAA

8330

PARK7

PARK7-201

TTTTCGTATTCAGTTGTCTATGAAAACCGTTTCCCTAGGAAGTACTTACTCTGCTTGAAAATGCTCCTAACTTTAAATTTTTGGG
AAAAGCATAAGTCAACAGATACTTTTGGCAAAGGGATCCTTCATGAATGAGACGAACTTTTACGAGGATTTGAAAATTTAAAAACC

8415

PARK7

PARK7-201

GTATCTCAGGGTTGCAATGAAAGTTTTTTTGAAGTCTTTTTTTTTTTTTTTTTTTTTTAAGGCTTGTAACATATAACATAAAAAATGGC
CATAGAGTCCCAACGTTACTTTCAAAAAACTTTAGAAAAAAAAAAAAAAAAAAAAAATTCGGAACATTTGTATATTGTATTTTTTACCG

8500

PARK7

PARK7-201

1
M A
ENSE...
PARK7-201

TTCCAAAAGAGCTCTGGTCATCCTGGCTAAAGGAGCAGAGGAAATGGAGACGGTCATCCCTGTAGATGTCATGAGGCGAGCTGGG
AAGGTTTTCTCGAGACCAGTAGGACCGATTTCTCGTCTCCTTTACCTCTGCCAGTAGGGACATCTACAGTACTCCGCTCGACCC

8585

PARK7

PARK7-201

S K R A L V I L A K G A E M E T V I P V D V M R R A G

ENSE00003616908

PARK7-201

GTAAGTCCCACATCGATTTTTAGCCATTCTGTTTTAAATGTTTTGGATTTTTAAATCATTTTTGAATAAAATATTCAAAGTGCT
CATTCAAGGGTGTAGCTAAAAATCGGTAAGGACAAAATTTACAAAAACCTAAAAATTTAGTAAAACTTATTTTATAAGTTTCACGA

8670

PARK7

PARK7-201

PARK7-201

CTATGAAATATTTCAAATATACACAAAATTTAGAGATGACATAAGAATAAATACCTGTTGATCCACTGCTCACATTTAACGCTT
GATACTTTATAAAGTTTATATGTGTTTTAAAGTCTCTACTGTATTCTTATTTATGGACAACCTAGGTGACGAGTGTAATTTGCGAA

8755

PARK7

PARK7-201

PARK7-201

GTTAATGTCTTGCCATATTTCTTCAGACCCATTTCTCTTTTGTGTTTGGAGCTCTGTCGTCCAGGCTGGAGTGCGATGGCAGGATC
CAATTACAGAACGGTATAAAGGAAGTCTGGGTAAAGAGAAAACAAAACCTCGAGACAGCAGGTCCGACCTCACGCTACCGTCCCTAG

8840

PARK7

PARK7-201

PARK7-201

TTGGCTCATTTTCGGTCTCTGCCTCCTGGGCCCAAACCATCTTCCACCTCAGCCTCCCAAATAGCTGAGACTACAGATGCGTGCC
AACCAGTAAAGCCAGAGACGGAGGACCCGGGTTTGGTAGAAGGGTGGAGTCCGAGGGTTTATCGACTCTGATGTCTACGCACGG

8925

PARK7

PARK7-201

PARK7-201

ACCACACCTGGCTAATTTTTGTATGTTTTGTAGAGACAGGGTTTTGCCATGTTGCCAGGCTGCTCTCCAACCTCCTGAGCTCAAG
TGGTGTGGACCGATTAAAAACATACAAAACATCTCTGTCCAAAACGGTACAACGGGTCCGACGAGAGGTTGAGGACTCGAGTTC

9010

PARK7

PARK7-201

PARK7-201

TTGTCCACCCGCCTCAGGCCTCCCAAAGTGTTAGGACTACAGGCGTGAGCCACTGCACTGTCTTAGACCCATTTCTTTTTCTT
AACAGGTGGGCGGAGTCCGGAGGGTTTTCACAATCCTGATGTCCGCACTCGGTGACGTGACAGGAATCTGGGTAAAGAAAAAAGAA

9095

PARK7

PARK7-201

PARK7-201

CTTTTTTTTTTTTTTTGAGATGGTGTCTCTCTGTGTCGCTCAGCCTGGAACGCAGTGGTGTGATCTCTGCTCGCTGCAACCTCTG
GAAAAAAAAAAAAAAAAACTCTACCACAGAGAGACACAGCGAGTCGGACCTTGCCTCACCACACTAGAGACGAGCGACGTTGGAGAC

9180

PARK7

PARK7-201

PARK7-201

CCTCCCGGGTTCAAGAGATTCTCCTGCCTCACCCCTCAGCTGGGATTACAGGTGTCCGCCACCACGCCCGGCTAATTGTATTTTTA
GGAGGGCCCAAGTTCTCTAAGAGGACGGAGTGGGAGTCGACCTAATGTCCACAGGCGGTGGTGCGGGCCGATTAACATAAAAAAT

9265

PARK7

PARK7-201

PARK7-201

GTACAGATGGGGTTTTACCATGTTGGCCAGGTTGGTCTCGAACTCCTGGCTTCAAGTGACCCGCCCGCCTTAGCCTTTTACAGTG
CATGTCTACCCCAAAGTGGTACAACCGGTCCAACCAGAGCTTGAGGACCGAAGTTCACTGGGCGGGCGGAATCGGAAAAATGTCAC

9350

PARK7

PARK7-201

PARK7-201

CTGGGATTACAGGCGAGGAGCCACCATGCCCGGCCCTCAGACTCGTTTCTTAAAGAGCAGATGCTTCAAAGAAATACATTTGAAG
GACCCTAATGTCCGTCTCGGTGGTACGGGCCGGGGAGTCTGAGCAAAGAATTTCTCGTCTACGAAGTTTCTTTATGTAAACTTC

9435

PARK7

PARK7-201

PARK7-201

CCCCCTTTGTAAATTTCTCCAATCCTATGCCCTTCTTCTTCTTAAAGATAAGTGCTATCCTCGCACTCTTGTGTATCCATGC
GGGGGAAACATTTAAAGAGGTTAGGATACGGGGAAGAAGGAAGGAATTTCTATTACGATAGGAGCGTGAGAACACATAGGTACG

9520

PARK7

PARK7-201

PARK7-201

ATGTGTGTCTTTTTTTTTTTTTTAAAGACAGAGTCTTGCTCTGTACCCAGGCTGGAGTGCAGTGGTGTGACCTCAGCTCACTGC
TACACACAGAAAAAAAAAAAAAAAAATTCTGTCTCAGAACGAGACAGTGGGTCCGACCTCACGTACCCACACTGGAGTCGAGTGACG

9605

PARK7

PARK7-201

PARK7-201

AACTTCTGCCTCCTGGGTTCAAGCAGTTCTCTGCCTCAGCCTCCCAAGTAGCTGGGATTACAGGTGCGCACCACCATGCCTGGCT
TTGAAGACGGAGGACCCAAGTTCGTCAAGAGACGGAGTCGGAGGGTTCATCGACCCTAATGTCCACGCGTGGTGGTACGGACCGA

9690

PARK7

PARK7-201

PARK7-201

AATTTTTTGTATTTTTAGTAGATGGGGTTTTACCATCTTGGCCAGGCTGGTCTTGAACCTTTGACCTCGTGATCCACCCACCTCG
TTAAAAAACATAAAAAATCATCTACCCCAAAGTGGTAGAACCGGTCCGACCAGAACTTGAGAACTGGAGCACTAGGTGGGTGGAGC

9775

PARK7

PARK7-201

PARK7-201

GCCTCCCAAAGTGCTGTGATTACAGATGTGAGCTACTGCACCCGCCCCACGCATGTCTTTAAGGTAGCATTGACCGTGGTTCT
CGGAGGGTTTCACGACACTAATGTCTACACTCGATGACGTGGGCGGGGTGCGTACAGAAATTCATCGTAAACTGGCACCAAGA

9860

PARK7

PARK7-201

PARK7-201

CATTTTGCCTGTTTATATATTATCTCTCTATCTAAAAATAGTGAACAGTGAAGTGAAGTAGAACTAACTCTGTGCCAGGCAGC
GTAAACGCACAAATATATAATAGAGAGAGATAGATTTTTATCACTTGTCACTTCACTTCATCTTGATTGAGACACGGTCCGTCTG

9945

PARK7

PARK7-201

PARK7-201

ATTCTAAGTGCCGATAAACCTTACAACAATGTCGTGAGTTAGATATCACCATCCTCATTTTACAGTTGAAGAACTGAGGCACAG
TAAGATTCACGGCTATTTGGAATGTTGTTACAGCACTCAATCTATAGTGGTAGGAGTAAATGTCAACTTCTTTGACTCCGTGTC

10,030

PARK7

PARK7-201

PARK7-201

AGACATAAATAATGTACCCACATCACGTAGTAAGTACAAAAGCCAGAACTCAGACCCAGGCAGCCTGGCCCCAGAGTCTGTTAAC
TCTGTATTTATTACATGGGTGTAGTGCATCATTGTTTTCGGTCTTGAGTCTGGGTCCGTCGGACCGGGTCTCAGACAATTG

10,115

PARK7

PARK7-201

PARK7-201

CCTATACTCCTCTGGTTCTCAGAAATGAAGATACATGTCGATTAAGTTTATCCACTTAAAATTGCTGCTTGGTGTGCACTGAAT
GGATATGAGGAGACCAAGAGTCTTTACTTCTATGTACAGCTAATTCAAATAGGTGAATTTTAAACGACGAACCACAACGTGACTTA

10,200

PARK7

PARK7-201

PARK7-201

GCCACAATCTACCCATTCTCTAATTACAGCATTACAATTCTGTAATACGTATTCTTGTGTAGGTTTCTTTGTGCAAATGTGAGG
CGGTGTTAGATGGGTAAGGAGATTAATGTCGTAATGTTAAGACATTATGCATAAAGAACACATCCAAAGAAACACGTTTACTCC

10,285

PARK7

PARK7-201

PARK7-201

AAATTTTTCCAGGTTATATATCTAAAAGTAGAATGACTAGGCCGAAGGATAGCCTGTAGTCAGCATGACTAGGTTTTGCCAAGTT
TTTAAAAAGGTCCAATATATAGATTTTCATCTTACTGATCCGGCTTCTATCGGACATCAGTCGTAAGGTTTCAA

10,370

PARK7

PARK7-201

PARK7-201

GCTCTCCAGTGTCCCAGTTTGTAGTCCCACCAGCAGTGTAGGAAAATTTCCCACTTTCCCACTGCCCAGCTCTTGGTATTGTTGACT
CGAGAGGTCACAGGGTCAAACATCAGGGTGGTCGTACATCCTTTAAGGGTGAAAGGGTACGGTTCGAGAACCATAACAACCTGA

10,455

PARK7

PARK7-201

PARK7-201

TTAAAAATTTTTGAAAGATAAAGCAGTATTTTCGTTGTTTGGACTTGCATTTCTATTTTACAAAAATACCATGAGGTTTAAATGGC
AATTTTTAAAACTTTCTATTTTCGTACATAAAGCAACAAACCTGAACGTAAAGATAAAATGTTTTTATGGTACTCCAAATTTACCG

10,540

PARK7

PARK7-201

PARK7-201

AACAGTAAACTTGCAAGATGAGTTATTAATAGGATGATCATATAACTGGTCACCCAAACCAGAACATTTGTGGGAGAAAGGGTGT
TTGTCATTTGAACGTTCTACTCAATAATTATCCTACTAGTATATTGACCAGTGGGTTTGGTCTTGTAAACACCCCTCTTTCCACA

10,625

PARK7

PARK7-201

PARK7-201

TCCAGTCCCACAGAGTACAGGGCAGCAGCTATAAGTAGGGTCTGTCCCGGGCAAACCAGGGTAGACCTAGTTATTAAATATATTT
AGGTCAGGGTGTCTCATGTCCCGTCGTGATATTCATCCAGACAGGGCCCGTTTGGTCCCATCTGGATCAATAATTTATATAAA

10,710

PARK7

PARK7-201

PARK7-201

AGCCAGTGTATTAGCTTAAATTTGGTATAGTTGTGGTGCAGTATTTCTGTGCATGTTACTTTCAAACACAGGGCAGCTGTGTAAA
TCGGTCACATAATCGAATTTAAACCATATCAACACCACGTCATAAAGGACAGTACAATGAAAGTTTGTGTCCCGTCGACACATTT

10,795

PARK7

PARK7-201

PARK7-201

CGTTACTCTAGCTGGGTGTGGTGGCTCATGTCTGTAATCCCAGCTACTTGGGAGGCTGAAGCAGGAGGATCATTGAGCCCAGGA
GCAATGAGATCGACCCACACCACCGAGTACAGACATTAGGGTCGATGAACCCTCCGACTTCGTCTCCTAGTAAACTCGGGTCTCT

10,880

PARK7

PARK7-201

PARK7-201

GCTGGAGGCTGCAGTAAGCTATGATTGTGTCCTGACCCCTAGCCCAGGTGACAGGGTGAGACCCCATCTCTCTTTTTTCTTTTT
CGACCTCCGACGTCATTTCGATACTAACACAGTGACGGGAGATCGGGTCCACTGTCCCCTCTGGGGTAGAGAGAAAAAAGAAAAA

10,965

PARK7

PARK7-201

PARK7-201

TTTTAAAGACAGTGTACTCTGAATTTATGTTTCAGTGTCTTAAATATGATAACATCTTTCTCGTAGATTAAGGTCACCGTTGC
AAAATTTCTGTACAATGAGACTTAAATACAAAGTCACAAGAATTTATACTATTGTAGAAAGAGCATCTAATTCCAGTGCCAACG

11,050

PARK7

PARK7-201

PARK7-201

I K V T V A
ENSE00003623984

AGGCCTGGCTGGAAAAGACCCAGTACAGTGTAGCCGTGATGTGGTCATTTGTCCTGATGCCAGCCTTGAAGATGCAAAAAAGAG
TCCGGACCGACCTTTTCTGGGTCATGTCACATCGGCACTACACCAGTAAACAGGACTACGGTCCGAACTTCTACGTTTTTTTTCTC

11,135

PARK7

PARK7-201

PARK7-201

G L A G K D P V Q C S R D V V I C P D A S L E D A K K E

ENSE00003623984

GTTTGTAAATCCATACATGGAGTTATTCCTTCATATGGCTTCTTTGTTTCTTGAAATGTCTTAAGAGTGTGTTAGCACAGACTCA
CAAACATTAGGTATGTACCTCAATAAGGAAGTATACCGAAGAAACAAAGAAGCTTTACAGAATTCTCACAACAATCGTGTCTGAGT

11,220

PARK7

PARK7-201

PARK7-201

TTTTAGAAAATTATTTTGTCTTGAATGTCTTCCCCTGACAGATTAAGAGGGTGAGGACTTTGTCTTTCTATTCTGTATCTGTAGAA
AAAATCTTTTAATAAAACGAACTTACAGAAGGGGACTGTCTAATTCTCCCACTCCTGAAACAGAAAAGATAAGACATAGACATCTT

11,305

PARK7

PARK7-201

PARK7-201

TGTGGCAATTGCTTGATACAGAATGTGCTTAGTAAGTGGGTGGCTGGATGGGTAGGTGGCCGGTTGGATGTGTGGCCAGATGGGT
ACACCGTTAACGAACTATGTCTTACACGAATCATTACCCACCGACCTACCCATCCACCGGCCAACCTACACACCGGTCTACCCA

11,390

PARK7

PARK7-201

PARK7-201

GGGTTGGTGCTTAGATGGATGGCTGCATTGTTTTCCCATCAGTATTTTTCTGGCTTACACAGGCATCCTTGCCTCCTATTACACA
CCCAACCACGAATCTACCTACCGACGTAACAAAAGGGTAGTCATAAAAAGACCGAATGTGTCCGTAGGAACGGAGGATAATGTGT

11,475

PARK7

PARK7-201

PARK7-201

TTTTTACCTGACATAAATCAACTGCCACATTTTTCCATTTTTTATTATTATTATTTTTGTTTAGAGGAATGGTCCCCTCTCTCCC
AAAAATGGACTGTATTTAGTTGACGGTGTAAAAGGTAAAAAATAATAATAAAAAACAAATCTCCTTACCAGGGTGAGAGAGGGG

11,560

PARK7

PARK7-201

PARK7-201

CTAGGCTGGAGTCCAGTGGTGCAGTCACAGCTCACTGCAGCCTCAACCTCCCAGGTTCAAGCAATCCTCCCACCTCAACCCCCCA
GATCCGACCTCAGGTCACCACGTCAGTGTGCGAGTGACGTCGGAGTTGGAGGGTCCAAGTTCGTTAGGAGGGTGGAGTTGGGGGGT

11,645

PARK7

PARK7-201

PARK7-201

CGTAGCTCGGACTACAGGCATGTGCCATGCCCGGCCATTATTTTTCTAAAGATACTTTCAGAGTTCCTACTGTAGTTGTGTTGTT
GCATCGAGCCTGATGTCCGTACACGGTACGGGCCGGTAATAAAAAGATTCTATGAAAGTCTCAAGGTGACATCAACACAACAA

11,730

PARK7

PARK7-201

PARK7-201

TTTTCAGTATCGTTGGAATTATGGCTCTTACCTTTAAGGACGATGGACACTTTTGGAAAGCTAGCATCCCTTTTCTCAGAAACATG
AAAAGTCATAGCAACCTTAATACCGAGAATGGAAATTCCTGCTACCTGTGAAAACCTTCGATCGTAGGGAAAGGAGTCTTTGTAC

11,815

PARK7

PARK7-201

PARK7-201

CTCCCCACAGGCGCTTTTGCACACTCCGTCGTGCGGTCAGCGTGACAGGAGTGTGGACTGTACCCTCTGACAGCAGGGTCATGG
GAGGGGGTGTCCGCGAAAACGTGTGAGGCAGCACGCCAGTCGCACTGTCTCACCACCTGACATGGGAGACTGTCTGCCAGTACC

11,900

PARK7

PARK7-201

PARK7-201

CAGGAAAGGAGGCAGAGTCGGCTCACAGATGGCTGGTTGCACACTGCTGAGGAACCTGGAGTGCGGTTCCCTGGGCCGAGCTGTC
GTCTTTTCTCCTCCGTCTCAGCCGAGTGTCTACCGACCAACGTGTGACGACTCCTTGGACCTCACGCCAAGGGACCCGGCTCGACAG

11,985

PARK7

PARK7-201

PARK7-201

CTCAGATACATAGGAAAAAGTTTAATCCTTTCTAATAAGTTTAGATTTTTTCATTACTGGATTGTAGAAAATTAGACTGTTGGTAT
GAGTCTATGTATCCTTTTTTCAAATTAGGAAAGATTATTCAAATCTAAAAAGTAATGACCTAACATCTTTTAATCTGACAACCATA

12,070

PARK7

PARK7-201

PARK7-201

TTACATGTGATTTGTTGAAACAAATTAATAATGACAAGCAGAAGTAAGTATTCCAGGCCAAGTGCAGTGGCTCACCTGTAATCCC
AATGTACACTAAACAACCTTTGTTAATTTTTACTGTTTCGTCTTCATTTCATAAAGGTCGGTTCACGTCACCGAGTGGACATTAGGG

12,155

PARK7

PARK7-201

PARK7-201

AGCACTTTTGGAGGCCAAAGTGGGAGGATCACTTGGGACCAGGAGTTTGAGACCAGCCTGGGCAACATAGCGAGACCGTTTTCTCT
TCGTGAAAACCTCCGGTTTTACCCCTCCTAGTGAACCCTGGTCCCAAACCTCTGGTCGGACCCGTTGTATCGCTCTGGCAAAGAGA

12,240

PARK7

PARK7-201

PARK7-201

TTAAATTAATAATTTGTAAAAGCCAGGTGTGGTGGTGCATGCCTGTAGTTCTAGCTACTTAAGAGGCTGAGGCAAGAGGATCACT
AATTTAATTTTTAAACATTTTCGGTCCACACCACCGTACGGACATCAAGATCGATGAATTCTCCGACTCCGTTCTCCTAGTGA

12,325

PARK7

PARK7-201

PARK7-201

TGAGCCTAGACGGTTGCTTGAGCCCAGGAATTTGAGACAGCAGTGAACCTGTGATTGTGCCATTGCCCTTCAGCCTGGGTGACAGA
ACTCGGATCTGCCAACGAACTCGGGTCCCTTAAACTCTGTCTGTCACCTTGACACTAACACGGTAACGGGAAGTCGGACCCACTGTCT

12,410

PARK7

PARK7-201

PARK7-201

GCGAGACCCTGTCTCAAAAATAATAATAACTTTTTTTCATCTCTGTTTGTGTTTTTGTGCATATGATGTCTGGGCATTTTTAAA
CGCTCTGGGACAGAGTTTTTATTATTATTATGAAAAAAGTAGAGACAAACACAAAAACAGTATACTACAGACCCGTAAAATTTT

12,495

PARK7

PARK7-201

PARK7-201

CAGTGGTTACCTTTATTTTCAATCGACAGATAATAAGTGTACATATTCATGGGATTTGTGATGTTTCCATGCATAATATATAGTG
GTCACCAATGGAAATAAAAGTTAGCTGTCTATTATTACATGTATAAGTACCCTAAACACTACAAAGGTACGTATTATATATCAC

12,580

PARK7

PARK7-201

PARK7-201

ATCGGATCAGAGTAATTAGCATATCCATCATCTCAAACATTTCTTTGTGTTGGGAACGTTCAATATCCTCCTTGCTATTTGAAAC
TAGCCTAGTCTCATTAAATCGTATAGGTAGTAGAGTTTGTAAAGAAACACAACCCTTGCAAGTTATAGGAGGAACGATAAACTTTG

12,665

PARK7

PARK7-201

PARK7-201

TATATATGATTGTTAACTATAGTCATTCTACGGGGGTATAGAACACCAGAACCTATTCCTCCTATCTAGCTATAATTTTGTATCT
ATATATACTAACAATTGATATCAGTAAGATGCCCCCATATCTTGTGGTCTTGGATAAGGAGGATAGATCGATATTA AACATAGA

12,750

PARK7

PARK7-201

PARK7-201

TTTAACAAATCTCTCCCTATCCCCACTTTCTCCTATCCTCCCCAGCCTCTAGTATCCTCTGTCCTACATTATGCTTCTATGTGAT
AAATTGTTTAGAGAGGGATAGGGGTGAAAGAGGATAGGAGGGGTCGGAGATCATAGGAGACAGGATGTAATACGAAGATACACTA

12,835

PARK7

PARK7-201

PARK7-201

CAATTTTTTTTTAGCTTTACATATGAGTGAGAACATGGAGTGTTTAAATTTGCTATTCCTGGCTTCTTTCACTTAATATAATGTT
GTTAAAAAAAAAATCGAAAGTGATACTCACTCTTGTACCTCACAAATTAACGATAAGGACCGAAGAAAGTGAATTATATTACAA

12,920

PARK7

PARK7-201

PARK7-201

CTCTAGTTCCATTCTTGTAGCCACAAATGACAAGATTTTCATTCTTTTTTATGGCTGGATAGTATCCCATTGTGTATAAATGCCAC
GAGATCAAGGTAAGAACATCGGTGTTTACTGTTCTAAAGTAAGAAAAAATACCGACCTATCATAGGGTAACACATATTTACGGTG

13,005

PARK7

PARK7-201

PARK7-201

ATTTTCTTTATGCATTCATCTGTTGTTGGACCTAGGTTGATTTGATGTTGGCTAGTGTGACTGTTGGTGTAGTAAACAAGGGA
TAAAAGAAATACGTAAGTAGACAACAACCTGGATCCAACATAAGCATACAACCGATCACACTGACAACCACATCATTTGTTCCCT

13,090

PARK7

PARK7-201

PARK7-201

GTGCAGGTGTCTCTTCAGTATACTGATTTCCCTTTCCATTGGATACATGCCAAGTAGTGGGATTGCTGGACCATATGGTAGTTCCA
CACGTCCACAGAGAAGTCATATGACTAAAGGAAAGGTAACCTATGTACGGTTCATCACCTAACGACCTGGTATACCATCAAGGT

13,175

PARK7

PARK7-201

PARK7-201

TTTACTGTAGTTTTTTAAGGAAGTGGTTACCTTTTGTGTGTTTTTATTTTTTCAGTGCAGATTCTAAAAGGAGTAAAAATAAATCT
AAATGACATCAAAAAATTCCTTCACCAATGGAAAAACACACAAAAATAAAAAAGTCACGTCTAAGATTTTCCTCATTTTTATTTAAGA

13,260

PARK7

PARK7-201

PARK7-201

ATACTTTACACATTTTCTTTTGAGTTTTGAGCTTTGCTTGGTTTTGAATCAACGGTAGGATGTTTATGGTCTTAAAAGTGATTCT
TATGAAATGTGTA AAAAGAAAAC TCAAAACTCGAAACGAACCAAAACTTAGTTGCCATCCTACAAATACCAGAATTTTCACTAAGA

13,345

PARK7

PARK7-201

PARK7-201

AAGCCAGCCATAGTGGTTCACACCTGAAATCCTAGCACTTTGTGAGGCTGAGGCAGGAGGATTACCTGAGCCCAGGAGTTTTGAG
TTCGGTCGGTATCACCAAGTGTGGACTTTAGGATCGTGAAACACTCCGACTCCGTCTCCTAATGGACTCGGGTCTCAAAACTC

13,430

PARK7

PARK7-201

PARK7-201

ACTAGCCTGGGCAATGAAGCGAGACCCTGTCTCTACAAAAATAAAAAAATTAGCTGGCTGTGGTGGTGCATGCCTGTAGTCCTA
TGATCGGACCCGTTACTTCGCTCTGGGACAGAGATGTTTTTATTTTTTTAATCGACCGACACCACCACGTACGGACATCAGGAT

13,515

PARK7

PARK7-201

PARK7-201

GCTCCTGCAGAGGCTGAAGTGGGAGAGTTGCTTGAGCCCAGGAGTTCAAGGCTGTAGTGAGCCACGATTGCATCACTGCACTCTA
CGAGGACGTCTCCGACTTCACCCTCTCAACGAAC TCGGGTCTCAAGTTCCGACATCACTCGGTGCTAACGTAGTGACGTGAGAT

13,600

PARK7

PARK7-201

PARK7-201

GCCTGGGTGACAGAGGTGAGGGCTTCTCTCTAAAAAATTTTATAGGTTGCACTAAATACATAATACATTTTTTATTTTGTAAATTT
CGGACCCACTGTCTCCACTCCCGAAGAGAGATTTTTTTAAAATATCCAACGTGATTTATGTATTATGTA AAAATAAAACATTAAA

13,685

PARK7

PARK7-201

PARK7-201

GTTTAATGACTAGATTTTTTTAACCAC TTTTTAAAGTACTAAAGTATTGTTGGCCGGCCACAGTGGTTCACGCCTGTAATCCCA
CAAATTACTGATCTAAAAAAATTTGGTGAAAAATTTTCATGATTTTCATAACAACCGCCGGTGTACCAAGTGCGGACATTAGGGT

13,770

PARK7

PARK7-201

PARK7-201

GCACCTTTGGGAGGCCGAGATGGGTGTATCACGAGGTCAGGAGTTTGGAGACCAGCCTGGTCAAGAGGGTGAAACCCCATCTTTACT
CGTGAAACCCTCCGGCTCTACCCACATAGTGCTCCAGTCTCTCAAACCTCTGGTCGGACCAGTTCTCCCACTTTGGGGGTAGAAATGA

13,855

PARK7

PARK7-201

PARK7-201

AAAAATACACAGATTAGCCGGGCACAGTGGTGGGTACCTGTAATCCCAGTTGCTTGGGAGGCTGAGGCAGGAGAATCGCTTGAAT
TTTTTATGTGTCTAATCGGCCCGTGTCAACCACCCATGGACATTAGGGTCAACGAACCCTCCGACTCCGTCTCTTAGCGAACTTA

13,940

PARK7

PARK7-201

PARK7-201

CCGGGAGACGGAAGTTGCAGTGAGCTGAGATCACTGCACTCTAACCTGGGTGACAGAGCAAGACTCTGTCTCAAAAAAAAAAAAA
GGCCCTCTGCCTTCAACGTCAGTCTGACTCTAGTGACGTGAGATTGGACCCACTGTCTCGTTCTGAGACAGAGTTTTTTTTTTTTT

14,025

PARK7

PARK7-201

PARK7-201

AAAGAAAAGAAAAATAAATAAATAAATAAAAAAGTCCTAAAGTATTGTTAAAAACAATTTCCGTTTTGTAATTTTCAGGAAGTTTGAA
TTTCTTTTCTTTTTATTTATTTATTTATTTTTCAGGATTTTCATAACAATTTTGTAAAGGCAAAACATTAAAGTCCTTCAAACCTT

14,110

PARK7

PARK7-201

PARK7-201

ATTAATTTGATTTCTAGGATTTTTTGGGGGGGATACTAAAAATTCTCCCCCGTTACATTTTTTCATAAAGTTAAGAAAAATTTTTT
TAATTAAACTAAAGATCCTAAAAAACCCCCCTATGATTTTAAGAGGGGGGCAATGTA AAAAAGTATTTCAATTCTTTTTAAAAAA

14,195

PARK7

PARK7-201

PARK7-201

GTGCCTTTTACTTAAAAATTTGTTTCTCTATTAATTTTATTTGTTTTTTTTAGACAGAGTCTTGCTCTGTTGCCAGGCTAGAGTGC
CACGGAAAATGAATTTTAAACAAAGAGATAATTA AAAATAAACAAAAAAATCTGTCTCAGAACGAGACAACGGGTCCGATCTCACG

14,280

PARK7

PARK7-201

PARK7-201

GGTGGTGCAGCCTCAGCTCACTGCAGCCTCTGCCTCCTAGGTTCAAGCGATTCTCCTGCCTCAACCCCCCAAGTAGATGGGACCA
CCACCACGTCCGAGTCGAGTGACGTCCGAGACGGAGGATCCAAGTTCGCTAAGAGGACGGAGTTGGGGGGTTTCATCTACCCTGGT

14,365

PARK7

PARK7-201

PARK7-201

CAGGTGTGCACCACCACACCCAGCTAATTTTCATATTTTTAGTAGAAATGGGGGTTTTGCCATGTTGGCCAGGCTGGTCTCGAAC
GTCCACACGTGGTGGTGTGGGTCGATTAAGTATAAAAAATCATCTTTACCCCAAAAACGGTACAACCGGTCCGACCAGAGCTTG

14,450

PARK7

PARK7-201

PARK7-201

TCCTGAGCTCAGGTAATCTTCCTGCCTTGGCCTCCCAAAGTGCTGGGATTACAGACATGAGCCAGTGTGCCAGCCTGTTTTTCT
AGGACTCGAGTCCATTAGAAGGACGGAACCGGAGGGTTTTACGACCCTAATGTCTGTACTCGGTCACACGGGTCGGACAAAAAGA

14,535

PARK7

PARK7-201

PARK7-201

ATTAATTTTTTAAGTTGTTTCATGTACATTCTTGTGTTGAACAATAATTCAAACAATATAGACACATATAAAGTCAAAATGTTAAATG
TAATTAATAAATTCAACAAGTACATGTAAGAACAACCTGTTATTAAGTTTGTATATCTGTGTATATTTTCAGTTTTACAATTTAC

14,620

PARK7

PARK7-201

PARK7-201

TCCTGTTCTCATTCTCCCTCTGCCCATCCCACACTACTCCATTAGCAACTAGAGTGTCTTCCTTTGTCTGTGACTACCTGTAT
AGGACAAGAGTAAGAGGGGAGACGGGGTAGGGTGTGATGAGGGTAATCGTTGATCTCACAGAAGGAAACAGACACTGATGGACATA

14,705

PARK7

PARK7-201

PARK7-201

ACAGAATATGTGGGGTGGGGTGCTTGTGGTGATTGTACACATACACGCATACATCTACACACAAATACATATATCCTTGTCTTTT
TGCTTTATACACCCACCCACGAAACCACTAACATGTGTATGTGCGTATGTAGATGTGTGTTTATGTATATAGGAACAGAAAA

14,790

PARK7

PARK7-201

PARK7-201

ACAGGAAGGAGATTATACTACCCCTGCTACTCTGCAGCGTGGACATCCTTGCATGTCACTACATACAGGTTTTCTGCATTTTTTG
TGTCCCTTCTCTAATATGATGGGGACGATGAGACGTCGCACCTGTAGGAACGTACAGTGATGTATGTCCAAAAGACGTAAAAAAC

14,875

PARK7

PARK7-201

PARK7-201

CTAGTTAAAACACCATTCGGTCATGTGGATACACCTTAATTTATTTAACTGTTCTATTGGCAGATAGGCTATCTCCTGTACTTCC
GATCAATTTTGTGGTAAGGCAGTACACCTATGTGGAATTAATAAATTGACAAGATAACCGTCTATCCGATAGAGGACATGAAGG

14,960

PARK7

PARK7-201

PARK7-201

CACATTTAAATAGGAAAGTATTATTGGACTGTCAATTTAATGCACAGTTGAAATGAAATGTTTTTGTCTTTATGTTTTAAA
GTGTAATTTTATCCTTTCATAATAACCTGACAGTTAAATTACGTGTCAACTTTACTTTACAAAAACAAAAGAAATACAAAAATTT

15,045

PARK7

PARK7-201

PARK7-201

CTGTTACAGGGACCATATGATGTGGTGGTTCTACCAGGAGGTAATCTGGGCGCACAGAATTTATCTGAGGTAAAAAATTCTACTC
GACAATGTCCCTGGTATACTACACCACCAAGATGGTCCTCCATTAGACCCGCGTGTCTTAAATAGACTCCATTTTTTAAGATGAG

15,130

PARK7

PARK7-201

65 P Y D V V V L P G G N L G A Q N L S E

ENSE0003584479

PARK7-201

AATTATACCTCAATAAAGCTGGGGGGGGGAAAAACTAAAGAATTTTCAGCATCTGCTTATGTTCTGTTAATTTTTGTTATTATTCA
TTAATATGGAGTTATTTTCGACCCCCCCCCCTTTTTGATTTCTTAAAGTCGTAGACGAATACAAGACAATTAACAATAATAAGT

15,215

PARK7

PARK7-201

PARK7-201

AATATTTTCGGGAGGAGGCTGTGAAAAAAAAATAGAAACAACATAAAATTAACAAAATGGTGTATAGCATTAACTCAAACCTTTTTT
TTATAAAGCCCTCCTCCGACACTTTTTTTTTATCTTTGTTGATTTAATTGTTTTACCACAATATCGTAATTGAGTTTGAAAAA

15,300

PARK7

PARK7-201

PARK7-201

TTTTTTTTGAGACAGAGTCTTGCTCTGTGGCCAGGCTGGAGTGCAGTGGCACAATCTCGGCTCACTGCAATCTCCGCCCTCCTGG
AAAAAAAACCTCTGTCTCAGAACGAGACACCGGGTCCGACCTCACGTCACCGTGTAGAGCCGAGTGACGTTAGAGGCGGAGGACC

15,385

PARK7

PARK7-201

PARK7-201

GTTCAAGCAGTTCTCCTGCCTCAGCCTCTGAGTAGCTGGGATTGCAGGCATGCACCCCATGCCCTGCTAATTTTTATATTTTTA
CAAGTTCGTCAAGAGGACGGAGTCGGAGACTCATCGACCTAACGTCCGTACGTGGGGGTACGGGACGATTAAAAATATAAAAAAT

15,470

PARK7

PARK7-201

PARK7-201

TTAGAGACGGGGTTTTACCATGTTGGCCAGTCTGGTCTCAAACCTCCTGACCTCGTGATCCGCCACCTCGGCCCTCCCAAAGTGCT
AATCTCTGCCCAAAGTGGTACAACCGGTGAGACAGAGTTTGAGGACTGGAGCACTAGGCGGGTGGAGCCGGAGGGTTTTACGA

15,555

PARK7

PARK7-201

PARK7-201

GGAATTATAGGCGTGAGCCACCACTCCCGACCTCAAGAAAACATTTTTTAATATTTTCTATGGAGGTCAGGTGCAGTGGCTCAACG
CCTTAATATCCGCACTCGGTGGTGAGGGCTGGAGTTCTTTTGTAAAAATTATAAAAGATACCTCCAGTCCACGTCACCGAGTTGC

15,640

PARK7

PARK7-201

PARK7-201

TCTATAATCCCAGTGGTTTTGGGAGGCTGAGACAGGAGGATTGCTTGAGGGCCAGGAGTTTGAGACCAGCCTAAGTAACACATCGAG
AGATATTAGGGTCACCAAACCTCCGACTCTGTCTCCTAACGAACTCCGGTCTCAAACCTCTGGTCGGATTTCATTGTGTAGCTC

15,725

PARK7

PARK7-201

PARK7-201

ACGCCATCTCTACAAAAATTTTCTTTTAATTAGCTGGGCACGGTGGTGACACTTGTAGTCCCAGCTACTCGGGAGGCTATGGT
TGCGGTAGAGATGTTTTTAAAAGAAAATTAATCGACCCGTGCCACCACGTGTGAACATCAGGGTCGATGAGCCCTCCGATACCA

15,810

PARK7

PARK7-201

PARK7-201

GGGAGGATGACTTGAGGGCCAGGGATTTGAGGCTGCAGTGAGCTGTGAATGCACCACTGCATTCTAGCCTGGGCAACAAAGCAAGA
CCCTCCTACTGAACTCCGGTCCCTAAACTCCGACGTCCTCGACACTTACGTGGTGACGTAAGATCGGACCCGTTGTTTCGTTCT

15,895

PARK7

PARK7-201

PARK7-201

ACCTGTCTTATCAGAAAAAAAAAATGTTGCCATGGAAGTAAGCTGAATTGGTGGGACCGTTATGAACAGATGTCGATGAATACAG
TGGACAGAATAGTCTTTTTTTTTTACAACGGTACCTTCATTGACTTAACCACCCCTGGCAATACTTGTCTACAGCTACTTATGTC

15,980

PARK7

PARK7-201

PARK7-201

TCCAAAGTAAGATGATTTGGTTTTTTTTCCACCAGCAGAAGAATGATCAGATTTTGTGTTTTGAGAAGGGCAAATTGTCTACTCAA
AGGTTTCATTCTACTAAACCAAAAAAAGGTGGTCGTCTTCTACTAGTCTAAAAACACAAAACCTCTCCCGTTTAAACAGATGAGTT

16,065

PARK7

PARK7-201

PARK7-201

AGTCTTAACTGGGGGAAGCTGTGGGGCTAGGGCTGCCAGCAGGAATGGCAAATGCCATCAGCAGAGACCATTGTTCCCTCATTTTA
TCAGAATTGACCCCTTCGACACCCCGATCCCGACGGTCGTCTTACCGTTTACGGTAGTCGTCTCTGGTAACAAGGAGTAAAAAT

16,150

PARK7

PARK7-201

PARK7-201

AGTCGTATGTGAGGAGTCAGAGGCCAGGGTGAGGGGCACACCTGCAGGCAGAGTTGGGGCTGCCAGAAGTAAGAAGTGGGTTGTG
TCAGCATACTCCTCAGTCTCCGGTCCCCTCCCGTGTGGACGTCCGTCTCAACCCCGACGGTCTTCATTCTTACCCCAACAC

16,235

PARK7

PARK7-201

PARK7-201

TCAGACACAAGGGATCTTTTCCTGCTAGATTCTGTTTCTCTCTGCCATCTGAAAACACCCAAAACACCACATTCCCTCCCATT
AGTCTGTGTTCCCTAGAAAAGGACGATCTAAGACAAGGAGAGAGACGGTAGACTTTTGTGGGTTTTGTGGTGTAAGGGAGGGTAA

16,320

PARK7

PARK7-201

PARK7-201

TCTTTCTCCCTGGAGTACAAAATGGCAAGGGTCAAATTGCTTCTTCTGATCTTTAAATGTGGAAGAGTGC GTTTCTTTATGAGA
AGAAAGAGGGACCTCATGTTTTACCGTTCCCAGTTTAACGAAGAAGACTAGAAATTTACACCTTCTCACGCAAAGAGAATACTCT

16,405

PARK7

PARK7-201

PARK7-201

AATGCCTTGCTTGGGTTTAAAGAAATAATATAGACACATTTTGATCATTTTTATACCAATGATTTAGAAATATTGTTGGAAAATA
TTACGGAACGAACCCAAATTCTTATATTATATCTGTGTAAACTAGTAAAAATATGGTTACTAAATCTTTATAACAACCTTTTAT

16,490

PARK7

PARK7-201

PARK7-201

GGTCAGAGAGCTTGTGGTTTTAAACTAAAATTAATTTCTTCCAAAGTTTCTAGTGAGTGATTGGTTAGTGGCTTAATGATAACTT
CCAGTCTCTCGAACACCAAATTTGATTTTAATTTAAGAAGGTTTCAAAGGATCACTCACTAACCAATCACCGAATTACTATTGAA

16,575

PARK7

PARK7-201

PARK7-201

TATGTATTTTTGGTTTTCTTTTCACTAGTCTGCTGCTGTGAAGGAGATACTGAAGGAGCAGGAAAACCGGAAGGGCCTGATAGCC
ATACATAAAAACCAAAGAAAAGTGATCAGACGACGACACTTCTCTATGACTTCTCGTCCTTTTGGCCTTCCCGGACTATCGG

16,660

PARK7

PARK7-201

85 90 95 100
S A A V K E I L K E Q E N R K G L I A
ENSE00003499981

PARK7-201

GCCATCTGTGCAGGTGACGTGCAGGGGCAGCCTGTGTTGCAGCGTCATTGGTGGGTGGGGTAGCCTTTTCATTTCGATGGTTTTGATT
CGGTAGACACGTCCACTGCACGTCCCCTCGGACACAACGTCGCAGTAACCACCCACCCCATCGGAAAGTAAGCTACCAAATAA

16,745

PARK7

PARK7-201

105
A I C A
ENSE00003499981

PARK7-201

CCAAATAGCTCTTCCCTTCATAAAGCATGCAGGGCATCTGTGTTGGTGTATTTAGTTTGGGTGGCATGAAGTTGGTGTCAATTC
GGTTTATCGAGAAGGGGAAGTATTTTCGTACGTCCCCTAGACACAACCACATAAATCAAACCCACCGTACTTCAACCACAGTAAAG

16,830

PARK7

PARK7-201

PARK7-201

AGAGATGAGGACAATTGTTCTGTTTTCTGCCTCTCCATGCCTTTGGTCTACATGCTGTGAAACTTAGTGTTTTCCGTGTTTTGGTT
TCTCTACTCCTGTAAACAAGACAAAAGACGGAGAGGTACGGAAACCAGATGTACGACACTTTGAATCACAAAAGGCACAAACCAA

16,915

PARK7

PARK7-201

PARK7-201

GACCTCGGAGGAAAATAAGGCCCTCTGGAATTCAGTAAACAGCTTGTTACAGCAAGTCTCTGTGCCAGAAAAGTCTTTGTGCCAGC
CTGGAGCCTCCTTTTATTCCGGGAGACCTTAAGTCATTTGTGCAACAATGTCGTTTCAGAGACACGGTCTTTTCAGAAACACGGTCG

17,000

PARK7

PARK7-201

PARK7-201

ACACAATCAGCAAAATCCATCAAACATCAACACAGCAGCTCTGTCTGTGCTTGCCCTGCAAATTCAGAAGCCCCCATGGTGCTT
TGTGTTAGTCGTTTTAGGTAGTTTGTAGTTGTGTCGTCGAGACAGGACACGAACGGGACGTTTAAAGTCTTCGGGGGTACCACGAA

17,085

PARK7

PARK7-201

PARK7-201

TCCGCTGGCTTCTCGGGCGTTTCTGATTGTCTCAGTACCGAGTGATCTTGGGCACCGCATTATCTGCCACATAATTTAGAACAAG
AGGCGACCGAAGAGCCCCGCAAAGACTAACAGAGTCATGGCTCACTAGAACCCGTGGCGTAATAGACGGTGTATTAAATCTTGTTTC

17,170

PARK7

PARK7-201

PARK7-201

GACATTTGGTGCTTCGCAGATGTCTCTTCTCTTTGTACCTTAGTAATATTTTATTTTCTCATAACCATTTAAGATCCATTCTT
CTGTAAACCACGAAGCGTCTACAGGAGAAGAGAAAACATGGAATCATTATAAAAATAAAAGAGTATTGGTAAAATTCTAGGTAAGAA

17,255

PARK7

PARK7-201

PARK7-201

GTTGCTTTCCTATCAGATGATGTTCTGCCATTTTGGTTTTTCCCATGCTGTAATTTTGGCAGCACCTTCCTTGTTGTATAGGT
CAACGAAAGGATAGTCTACTACAAGACGGTAAAACCAAAAAGGGTACGACATTAAAAACGGTCGTGGAAGGAACAACATATCCA

17,340

PARK7

PARK7-201

PARK7-201

CTTCATTAAATATTTGTCAGGGCCGGGGCGCAGTGGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCTGAGGCGGGCAGATCACC
GAAGTAATTTATAAACAGTCCCGGCCCGCGTCCACCGAGTGCGGACATTAGGGTCTGTGAAACCTCCGACTCCGCCCCGTCTAGTGG

17,425

PARK7

PARK7-201

PARK7-201

TGAGGTCAGGAGTTCAAGACCAGCCTGGCCACCATGGTGAAACCCCATCTCTACTAAAAATACAGAAATTAGCCAGGCGTGTTGG
ACTCCAGTCCTCAAAGTTCTGGTCGGACCGGTGGTACCACTTTGGGGTAGAGATGATTTTTATGTCTTTAATCGGTCCGCACCACC

17,510

PARK7

PARK7-201

PARK7-201

CGGGCGCCTGTAATCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATCGCTTGAACCCGGGAGGCGGAGGTTGCAGTGAGCCGAGA
GCCCGCGGACATTAGGGTCGATGAGCCCTCCGACTCCGTCTTAGCGAACTTGGGCCCTCCGCCTCCAACGTCCTCGGCTCT

17,595

PARK7

PARK7-201

PARK7-201

TTGTGCCGTTGCACTCCAGCCTGGGGGACACGAGCGAGACTTCGTCTCAAAAAAAAAATAAAATAAAATAAAATAAATATTTGTC
AACACGGCAACGTGAGGTCGGACCCCTGTGCTCGCTCTGAAGCAGAGTTTTTTTTTTTTATTTTATTTTATTTTATTTTATAAACAG

17,680

PARK7

PARK7-201

PARK7-201

AGAAGAGTGAATGAATAAACGAATGAATGAGTGGATGGTTTTGGTAAACATCAACATCAAAACATGTTGCTGTTGCTATTTTGTTC
TCTTCTCACTTACTTATTTGCTTACTTACTCACCTACCAAACATTTGTAGTTGTAGTTTTGTACAACGACAACGATAAAACAAG

17,765

PARK7

PARK7-201

PARK7-201

AATACAGTAGGCTTTTCAAAGAAGTTATGGGCCAGAGGTCCTGGGGACTTGATACATTCGAGTATCAGTGGTTCTCAATGTTCT
TTATGTCATCCGAAAAGTTTTCTTCAATACCCGGTCTCCAGGACCCCTGAACTATGTAAGCTCATAGTCACCAAGAGTTACAAGA

17,850

PARK7

PARK7-201

PARK7-201

TTTGGTGCACCTTGCAAGGTCAAAGCAGATGCTACTGAGGGGCCAGGTGTGGTGGCTCATGCCTGTAATCTCAGCATTTTGGGAGG
AAACCACGTGAACGTTCCAGTTTCGTCTACGATGACTCCCGGTCCACACCACCGAGTACGGACATTAGAGTCGTAAAACCTCC

17,935

PARK7

PARK7-201

PARK7-201

CCAAGGCAGAAGGATCTCTTGAAAGCCAGGAGTTTGGAGACTAACCTTGGCAACATAGCCAGACCCCATCTCAACAAACAAACAA
GGTCCCGTCTTCTAGAGAACTTTCCGGTCTCCTCAAACCTCTGATTGGAACCGTTGTATCGGTCTGGGGGTAGAGTTGTTTGTGTTGTT

18,020

PARK7

PARK7-201

PARK7-201

ACAAAAAATTAGCCAAGCACAGTACTGCATGCATGTAGTCCCAGCTACTCAGGAGGCTGAGATGGGAGGATCGCTTGAAGGCAAG
TGTTTTTTAATCGGTTTCGTGTCATGACGTACGTACATCAGGGTTCGATGAGTCTCCGACTCTACCCTCCTAGCGAACTTCCGTTTC

18,105

PARK7

PARK7-201

PARK7-201

AGTTAGAGGCTGCAGTGAGCTATGATTGCACTCCAGCCTGGGCAGCAGAGTGACACCATGTCTTTCAAACAAAATGTTATTCGCC
TCAATCTCCGACGTCACCTCGATACTAACGTGAGGTCGGACCCGTCGTCTCACTGTGGTACAGAAAGTTTGTGTTTACAATAAGCGG

18,190

PARK7

PARK7-201

PARK7-201

TTTTTCTTCTCAGTCTTTCAGGAGTGACATCAGAGTAGGATGATACCATCATCTGAGAATTTATTATTGTGTTTTAAAAATTTTC
AAAAAAGAAGAGTCAGAAAGTCTCACTGTAGTCTCATCCTACTATGGTAGTAGACTCTTAAATAATAACACAAAATTTTTAAAG

18,275

PARK7

PARK7-201

PARK7-201

CCAGTTTTATTAGGTTGATGTAAAAGTAATTGTGGTTTTTGGCATTAAAAGTAATTGGCGTGCCACAGTGCCGCATGCCTGTAAT
GGTCAAAAATAATCCAACCTACATTTTCATTAACACCAAAAACGGTAATTTTCATTAACCGCACCGTGTACCCGCGTACGGACATTA

18,360

PARK7

PARK7-201

PARK7-201

CTCAGCACTTTGGGAAGCTGAGGTGGGCAGATCGTTTTGAGGTGAGGAGTTCAAACCCAGCCTGGCAAACGTGGTGAAATCCCGTT
GAGTCGTGAAACCCCTTCGACTCCACCCGTCTAGCAAACCTCAGTCTCAAGTTTTGGTCGGACCGTTTGCACTTTAGGGCAA

18,445

PARK7

PARK7-201

PARK7-201

TCTACTAAAAATACAAAAGTTAGCTGGGCATGGTGGTGCACGCCTGTAATCCCAGCTACTCGGGAGGCTGAGGTGGGAGGATCAC
AGATGATTTTTATGTTTTCAATCGACCCGTACCACCACGTGCGGACATTAGGGTTCGATGAGCCCTCCGACTCCACCCCTCCTAGTG

18,530

PARK7

PARK7-201

PARK7-201

TTGAGGTCAGGAGTTCGAAACCAGCCTGGCTAACATGGTGAAACCCCGTCTCTACTAAAAATACAAAAGTTAGCTGGGCAGTTAG
AACTCCAGTCCTCAAGCTTTGGTCGGACCGATTGTACCACTTTGGGGCAGAGATGATTTTTATGTTTTCAATCGACCCGTCATC

18,615

PARK7

PARK7-201

PARK7-201

CTGGGTATGGTGATGCATTCCCTGTAATCCCAGCTATCAGGAGGCTGAGGCAGGAGAATCTATTGAACCCGGGCGGCGGAGGTTGC
GACCCATACCACTACGTAAGGACATTAGGGTCGATAGTCCTCCGACTCCGTCTCTTAGATAAATTGGGCCCGCCGCCTCCAACG

18,700

PARK7

PARK7-201

PARK7-201

AGTGAGCCGCGATTACGCCACTGCACTCCAGCCTGGGTGACACAGCAAGACTGTCTCAAAAAAAGTAATAATTTTTAATATGGC
TCACTCGGCGCTAATGCGGTGACGTGAGGTCGGACCCACTGTGTCGTTCTGACAGAGTTTTTTTTTCATTATTAATAAATTATACCG

18,785

PARK7

PARK7-201

PARK7-201

AGATGTTTCATAGATATAACCCACATAAAAAGCTAAAGGGATTCTAAGACCTAAATGTTTGAGAACCCTGGCATTAGGGGCTGGGAA
TCTACAAGTATCTATATTGGGTGATTTTTCGATTTCCCTAAGATTCTGGATTTACAAACTCTTGGCACCGTAATCCCCGACCCCTT

18,870

PARK7

PARK7-201

PARK7-201

GAACCACAGAGGTTGACCACCCTGGCAGGTCTTGTACGTGGGCTTACTACAAGAGTCACCACTAGCCTTTTGACCTGCCCTGAGG
CTTGGTGTCTCCAACCTGGTGGGACCGTCCAGAACATGCACCCGAATGATGTTCTCAGTGGTGATCGGAAAACCTGGACGGGACTCC

18,955

PARK7

PARK7-201

PARK7-201

CTCAGGTAATTATCTCTGCCAAAGGGCACTGCAGTCACTGCAGCCCAAGCAGCTGCTCCCCTCTTTGGAGAGAAAAGTCACAGATC
GAGTCCATTAATAGAGACGGTTTTCCCGTGACGTGACGTGACGTGCGGTTTCGTGACGAGGGGAGAAAACCTCTCTTTCAGTGTCTAG

19,040

PARK7

PARK7-201

PARK7-201

CTTGAGTTTGGTTTTCTTTGGCTCTGCTGCTGTGAAGCAAGCCTCAGTCCTAGATTCTTTGACCAAAGGAAGAAAGAGTTTGGGC
GAACTCAAACCAAAGAAACCGAGACGACGACACTTCGTTTCGGAGTCAGGATCTAAGAAACTGGTTTTCTTCTTCTCAAACCCG

19,125

PARK7

PARK7-201

PARK7-201

TGAGTTTGTTCCTTATGATTCTGCTGAAAAGTAAAAACCATGTGTCAGTTTGTCTCTGTGCCACAAAAGTAGCAAAATCACTTAAG
ACTCAAAACAAAGGAATACTAAGACGACTTTCATTTTTGGTGACAGTCAAACAGGACACGGTGTTCATCGTTTTAGTGAATTC

19,210

PARK7

PARK7-201

PARK7-201

GTCAGGAGTTTCGAAACCAGCCTGGCCACCATGGTGAAACCCCATCTCTACTAAAAATACAGAAATTAGCCAGGCGTGGTGGCGCG
CAGTCCTCAAGCTTTGGTCGGACCGGTGGTACCACTTTGGGGTAGAGATGATTTTTATGTCTTTAATCGGTCCGCACCACCGCGC

19,295

PARK7

PARK7-201

PARK7-201

TGCCTGTAATCCCAGCTGCTTGGGAGGCTGAGGCAGGAGAATCGCTTGAACCTGGGAAGTGGAGGTTGCAGTGAGCCAAGATTGC
ACGGACATTAGGGTCGACGAACCCCTCCGACTCCGTCTTACGGAACCTTGGACCCTTCACCTCCAACGTCACCTCGGTTCTAACG

19,380

PARK7

PARK7-201

PARK7-201

GCCATTGCACTCCAGCCTGGGCAACAAGAGTGAAACTCCGTCTCAAAAAATAAATAAAATAAATAAATAAATAAATAAATAAACA
CGGTAACGTGAGGTCGGACCCGTTGTTCTCACTTTGAGGCAGAGTTTTTTATTTATTTTATTTTATTATTTTATTTTATTGTT

19,465

PARK7

PARK7-201

PARK7-201

AAATTAGCAGGGCATGGTGGCGCATGCCTGTCGTCCTAGCTACTTGGGAGGCTGAGGCAGGAGAATCGCTTGAACCCGGGAGGCG
TTTAATCGTCCCGTACCACCGGTACGGACAGCAGGATCGATGAACCCCTCCGACTCCGTCTTACGGAACCTTGGGCCCTCCGC

19,550

PARK7

PARK7-201

PARK7-201

GAGATTGCAGTGAGCCGAGATCGTGCCACTGCACTCCAGCCTGAGCGACAGAGCAAGACTTCGTTTTCAAAAAAAAAAAAAAAAA
CTCTAACGTCACCTCGGCTCTAGCACGGTGACGTGAGGTCGGACTCGCTGTCTCGTTCTGAAGCAAAGTTTTTTTTTTTTTTTT

19,635

PARK7

PARK7-201

PARK7-201

TCAACCACATTTGGCTTACTGTTTTGTGCTGAGGCTAGATGGAATGCCATGCTAAGAAGCATGGGCCTTATAGTACTTTAAATCA
AGTTGGTGTAACCGAATGACAAAACACGACTCCGATCTACCTTACGGTACGATTCTTCGTACCCGGAATATCATGAAATTTAGT

19,720

PARK7

PARK7-201

PARK7-201

ACATTAATAAATAAACAGGCTGGCTGTGGTGGCTCATAGCTGTAATCCTAGCACTTTGGGAGACTGAGGTGGGAGGATCACTTGA
TGTAATTTTTTATTTTGTCCGACCGACACCACCGAGTATCGACATTAGGATCGTGAAACCCTCTGACTCCACCCTCCTAGTGA

19,805

PARK7

PARK7-201

PARK7-201

ACCCAGGAGTTCAAGACCAGCCTGGGCAACATAGTGAGACCCCCACCGACCTCTACAAAAAATATTTTTAAAAATCAGCCTG
TGGGTCCTCAAAGTTCTGGTCGGACCCGTTGTATCACTCTGGGGGGTGGCTGGAGATGTTTTTTATAAAATTTTTTAGTCGGAC

19,890

PARK7

PARK7-201

PARK7-201

GTGTGGTGGTGCACACTTGTAGTCCCAGCTACTCAGGAGGCTGAGGTGGGAGGATCACTTTGAGCCCAGGAATTTGAGGTTACAT
CACACCACCACGTGTGAACATCAGGGTCGATGAGTCTCCGACTCCACCCTCCTAGTGAAACTCGGGTCCTTAAACTCCAATGTA

19,975

PARK7

PARK7-201

PARK7-201

TGAGATGTGGTGATCACACCACTGCACTTGAGCCTAAAGGACAGAGCAAGACTTGGTCTCTTAAAAAAAAAAGTAAAAATAGGC
ACTCTACACCACTAGTGTGGTGACGTGAACTCGGATTTCTGTCTCGTTCTGAACCAGAGAATTTTTTTTTTCATTTTTATCCG

20,060

PARK7

PARK7-201

PARK7-201

CAAGGGCGGTGGCTCACACCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGTGCGGATCACAAGGTCAGGAGATCGAGACCATCC
GTTCCCGCCACCGAGTGTGGACATTAGGGTCGTGAAACCCTCCGGCTCCGCACGCCTAGTGTTCCAGTCTCTAGCTCTGGTAGG

20,145

PARK7

PARK7-201

PARK7-201

TGGCTAACACGGTGAACCCTGTCTCTCTAAAAATACAAAAATTAGCCAGGCGTGGTGGCGGGTGCCTGTAGTCCCAGCTACT
ACCGATTGTGCCACTTTGGGACAGAGAGGATTTTTATGTTTTTAAATCGGTCCGCACCACCGCCACGGACATCAGGGTCGATGA

20,230

PARK7

PARK7-201

PARK7-201

CGGGAGGCTGAGGCAGGAGAATGGTGTGAACCTGGGGGGCAGAGCTTGCAGTGAGCCGAGATTGCGCCACTGCTCTCCAGCCTGG
GCCCTCCGACTCCGTCTCTTACCACACTTGGACCCCCGTCTCGAACGTCACTCGGCTCTAACGCGGTGACGAGAGGTCGGACC

20,315

PARK7

PARK7-201

PARK7-201

GCGACAGAGTGAGACTCCATCTCAAAAAAAAAAAAAAAAAATTATATAAAAAAACAGTAAAAATAGAAAAACACACTAGCAGTGTGTTTATA
CGCTGTCTCACTCTGAGGTAGAGTTTTTTTTTTTTTAAATATATTTTTTTGTCATTTTTTATCTTTTGTGTGATCGTCACACAAATAT

20,400

PARK7

PARK7-201

PARK7-201

CCATTGAATATCCTGCACCACTGTTGTGGGCACTACACCAGAAATAGGAAAAAATGTGATGATGAGCTGAGCTAATTGAGATGAG
GGTAACTTATAGGACGTGGTGACAACACCCGTGATGTGGTCTTTATCCTTTTTTACACTACTACTCGACTCGATTAACTCTACTC

20,485

PARK7

PARK7-201

PARK7-201

GGTTATGGGAATGGAACAGAGGAGTGATGGAAGAGATTTGGATCTTTTAAATTGGCAAACAGAAAAATAAGATTCTTTTTTTTTT
CCAATACCCTTACCTTGTCTCCTCACTACCTTCTCTAAACCTAGAAAATTTAACCGTTTGTCTTTTTATTCTAAGAAAAA

20,570

PARK7

PARK7-201

PARK7-201

TTTTTTTTGTTGAAATGGGAGCTTTGCTCTTGTGGCCCAAGCTGGAGTGCAGTGGTGCAATTTGGGCTCACTGCAACCTCCACCT
AAAAAAAACAACCTTTACCTCGAAACGAGAACAACGGGTTTCGACCTCACGTCACCACGTTAAAGCCGAGTGACGTTGGAGGTGGA

20,655

PARK7

PARK7-201

PARK7-201

CCCAGGTTCAAGCGATTCTCCTGCCTCAGGCTCCCGAGTAGCTAGAATTACAGGCACCTGCCACCATGCCAGCTAATTTTTGTA
GGGTCCAAGTTCGCTAAGAGGACGGAGTCCGAGGGGCTCATCGATCTTAATGTCCGTGGACGGTGGTACGGGTTCGATTA AAAACAT

20,740

PARK7

PARK7-201

PARK7-201

TTTTTGGTAGAGACGGGGTTTACCATGTTAGCCAGGCTGGTCTCGAACTCCTGATCTCGTGATCCGCCACCTTGGCCTCCCAA
AAAAACCATCTCTGCCCAAAGTGGTACAATCGGTCCGACCAGAGCTTGAGGACTAGAGCACTAGGCGGGTGGAACCGGAGGGTT

20,825

PARK7

PARK7-201

PARK7-201

AGTGCTAGGATTACAGGCGTGAGCCACCGCACCCAGCCAAGATTATTCTGAAGTGTTCAGTTAGGGATTGGAAACATTTTGAAC
TCACGATCCTAATGTCCGCACTCGGTGGCGTGGGTTCGTTCTAATAAGACTTCACAACGTCAATCCCTAACCTTTGTAAAACCTTG

20,910

PARK7

PARK7-201

PARK7-201

ACAAAGAATATTAGCCTAGTCCTTAATATTGAGTGAATGAGGAACGCAAATTGGAAGGGAGTCTATGTTGAGAAGAAAATTAAT
TGTTTTCTTATAATCGGATCAGGAATTATAACTCACTTACTCCTTGCGTTTAACTTCCCTCAGATACAACCTCTTCTTTTAATTTA

20,995

PARK7

PARK7-201

PARK7-201

GATATTTACTTTGAGTAGGGGAGGGGGAGGAAGTGTGGAGTTGGAGGAGTGGACAGTTGTCAGCTGAGATGCCAGGTCTAGGAA
CTATAAATGAAACTCATCCCCTCCCCTCCTTCACACCTCAACCTCCTCACCTGTCAACAGTCGACTCTACGGGTCCAGATCCTT

21,080

PARK7

PARK7-201

PARK7-201

TGAGGCCTCTGGAAGCAAGGTCTTGGCCACCTGGAGGAGCTGGGGAGTTGGCAGAGGTGGTCATTTTGCATGTTACCACAGGGTG
ACTCCGGAGACCTTCGTTCCAGAACCGGTGGACCTCCTCGACCCCTCAACCGTCTCCACCAGTAAAACGTACAATGGTGTCCCAC

21,165

PARK7

PARK7-201

PARK7-201

GTGCTGTTGGCTGCAGAAGGGGACATGGTCAGCTGCGCCCTCTGCACTGTAGTGCAGAGTACAGAGCGTTTTTCATCCATCAGAAT
CACGACAACCGACGTCTTCCCCTGTACCAGTCGACGCGGGAGACGTGACATCACGTCTCATGTCTCGCAAAGTAGGTAGTCTTA

21,250

PARK7

PARK7-201

PARK7-201

CCCAGGTCTGGGAGAGTGAAACGTCTCTTCTCCAGTATTCCAAATAGGGTTCTGACGCCCCAGAAAAGCAGTGATTATGAGCTTA
GGGTCCAGGACCCTCTCACTTTGCAGAGAAGAGGTCATAAGGTTTATCCCAAGACTGCGGGGTCTTTTCGTCACTAATACTCGAAT

21,335

PARK7

PARK7-201

PARK7-201

CCTGATAAGTATGAAAGACATCAGTAAATTCCTGAATCCAACCTGTAACATAAATTTATTCACATCGTAGCAGTGATTTTATTACC
GGACTATTCATACTTTCTGTAGTCATTTAAGGACTTAGGTTGACATTGTATTTAAATAAGTGTAGCATCGTCACTAAAATAATGG

21,420

PARK7

PARK7-201

PARK7-201

ACCTTGAAGGGAGCAGCCTAAAAATTCTCGTTCACCGATCACTTTCCTCACTGTGCTATCATCTATTAAGTTTACTTTAAAATG
TGGAACCTCCCTCGTCGGATTTTTAAGAGCAAGTGGCTAGTGAAAGGAGTGACACGATAGTAGATAATTTCAAATGAAATTTTAC

21,505

PARK7

PARK7-201

PARK7-201

CAAGATGATGTAGGAATTTCTTCTTAAATTTCTTACCAAATAAAAAATTA AAAACAATTTATAAATCCATTCAAATAAAAAATTGATA
GTTCTACTACATCCTTAAAGAAGAATTTAAGAATGGTTTATTTTTAATTTTTTGTAAATATTTAGGTAAGTTTATTTTTAACTAT

21,590

PARK7

PARK7-201

PARK7-201

ATTATTCAATTCTTACGGACTTCTAAAATTTGCTACCATACATAGCTGTCTTGTGTGTAAAAATAACGTGGAGAAGAGACATTTG
TAATAAGTTAAGAATGCCTGAAGATTTTAAACGATGGTATGTATCGACAGAACACACATTTTTATTGCACCTCTTCTCTGTAAAC

21,675

PARK7

PARK7-201

PARK7-201

AGGCTTTTGTATTTAAGAGCTATAAATCAGGACTTGGTCTGAAACTGACAGCTGATATTAGGCAGAAAAGCTTATGTAATTAGGTAG
TCCGAAAACATAAATCTCGATATTTAGTCCTGAACCAGACTTTGACTGTGCGACTATAATCCGTCTTTTGAATACATTAATCCATC

21,760

PARK7

PARK7-201

PARK7-201

TATTTGTGTGATCTTCCTGTTTGTAAACAGCTACGGTCTGAGTAGCTTGTGGGTATATTATATAATTCCTTCCTTGGAGTCTTGTT
ATAAACACACTAGAAGGACAAACATTGTCGATGCCAGACTCATCGAACACCCATATAATATATTAAGGAAGGAACCTCAGAACAA

21,845

PARK7

PARK7-201

PARK7-201

GAAAAATGAAAGGACAGTAAGACCAAGACCTCTCAGGTTTGTGACTAAAGTGTACAAACTGTGCCACAGGATCTTAGCCAT
CTTTTTACTTTCTGTCATTCTGGTTCTGGAGAGTCCAAACGACTGTGATTTTACATGTTTGACACGGTGTCTTAGAATCGGTA

21,930

PARK7

PARK7-201

PARK7-201

CCAGGGCACCTTAAGTGTTC AAGATCAAGGTGCTGTTCTGAAACGTATCCTTCTAAGTGTCATGTGAGGCCTTAGAAAGAATG
GGTCCCGTGGAATTCACAAAGGTTCTAGTTCCACGACAAGACTTTGCATAGGAAGATTACACAGTACACTCCGGAATCTTTCTTAC

22,015

PARK7

PARK7-201

PARK7-201

TTTATATGTGTGGCTTAGAGGAAAAAGGTAGAATGAATACTTTGTAAAAAGCTTTAAGATGAAATAACAATGAAAGGTATATAAA
AAATATACACACCGAATCTCCTTTTTCCATCTTACTTATGAAACATTTTTCGAAATCTACTTTATTGTTACTTTCCATATATTT

22,100

PARK7

PARK7-201

PARK7-201

ATCTTTGTTTTTAATCCTTATTTAGGACCATTACATACGCAATATGCTTGTGACCCCTCCCTGAAGTTGGCCGTTTTTCAGTGAATA
TAGAAACAAAAATTAGGAATAAATCCTGGTAATGTATGCGTTATACGAACACTGGGAGGGACTTCAACC GGCAAAAAGTCACTTAT

22,185

PARK7

PARK7-201

PARK7-201

CATTTAAATAAAAAATCTCAAGTTAGGACCTGCCAATTTGGAAAGACTTCATCAACTGACACTTCCATGTGGTTCTTTGCTTAAGT
GTAAATTTATTTTTAGAGTTCAATCCTGGACGGTTAAACCTTTCTGAAGTAGTTGACTGTGAAGGTACACCAAGAAAACGAATTCA

22,270

PARK7

PARK7-201

PARK7-201

AGCTTTCATCACGTGATGCTAGTGCCTTTATATCTCACACTTCCAGGCCTTCACAGGCTATCTCCTTCAAGGACAGTGTGCTGT
TCGAAAGTAGTGCACCTACGATCACGGAAATATAGAGTGTGAAGGTCCGTGAAGTGTCCGATAGAGGAAGTTCTGTACACGACA

22,355

PARK7

PARK7-201

PARK7-201

CCATTTTAATCCTACCACCTGGCATACTTGGGTGGATAGGTGGATGAACGAGTGTTAATTTCCCATTTTTATTTATTTATTTTTTA
GGTAAATTAGGATGGTGGACCGTATGAACCCACCTATCCACCTACTTGCTCACAATTAAGGGTAAAAATAAATAAAAAAAT

22,440

PARK7

PARK7-201

PARK7-201

TTTATTTTGAGACAGAGTCTCGCTCTGTGCGCCAGGCTGGAGTGCAGTGGCACGATCTTGGCTCACTGAAAAGCTCTGCCTCCCGG
AAATAAACTCTGTCTCAGAGCGAGACAGCGGGTCCGACCTCACGTACCGTGCTAGAACCGAGTGACTTTCGAGACGGAGGGCC

22,525

PARK7

PARK7-201

PARK7-201

GTTACCCCATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGACTACAGGCGCCCGCCACCACGCACAGCTAATTTTTTGTATTTT
CAAGTGGGGTAAGAGGACGGAGTCCGAGGGCTCATCGACCCTGATGTCCGCGGGCGGTGGTGCCTGTCGATTAAAAAACATAAAA

22,610

PARK7

PARK7-201

PARK7-201

TAGTAGAGACAGGGTTCCAGCGTGTTAGCCAGGATGGTCTTGATCTCCTGACCTCATGATCCAGCCGCCTTGGCCTCCCAAAGTG
ATCATCTCTGTCCCAAGGTCGCACAATCGGTCTACCAGA ACTAGAGGACTGGAGTACTAGGTCCGCGGAACCGGAGGGTTTCAC

22,695

PARK7

PARK7-201

PARK7-201

CTGGGAATACAGGCATGAGCCACCGTGCCCGGCCTAATTTCCCATTTTCAAGTAGAAAAATAAGATTACAAAAGAGCAATAAAATC
GACCCCTTATGTCCGTA CTCTCGGTGGCACGGGCCGGATTAAGGGTAAAAGTTCATCTTTTATTCTAATGTTTTCTCGTTATTTTTAG

22,780

PARK7

PARK7-201

PARK7-201

CAGAAGTTCAGAGAGTACCAGTTGCCTTTAGCATGTAACATAAATCTTTCTTTTACTAAGAGTGAGGTAAGAAGTTGAGCCCGCC
GTCTTCAAGTCTCTCATGGTCAACGGAAATCGTACATTGATTTAGAAAAGGAAAATGATTCTCACTCCATTCTTCAACTCGGGCCGG

22,865

PARK7

PARK7-201

PARK7-201

CCAGTGATCCTCCCCCTCCTTTGGACTCCTGGTATATGTGGTCCCTGTTCTGGGGATGGGGAAGGTGAGAGAGGTGAGCACATTT
GGTCACTAGGAGGGGGAGGAAACCTGAGGACCATATACACCAGGGACAAGACCCCTACCCCTTCCACTCTCTCCACTCGTGTA

22,950

PARK7

PARK7-201

PARK7-201

TGTTTATCTGTGTATGCTCTGCTGGTATCAAGGTAAATCTTCTTGAGTAAATGGTTATTGAAGTATTTTGGAGTTTCTGTGCTTTT
ACAAATAGACACATACGAGACGACCATAGTTCCATTTAGAAGAATCATTTACCAATAACTTCATAAAACTCAAAGACACGAAAA

23,035

PARK7

PARK7-201

PARK7-201

GCCAGATGTGCTCAGCAAATCGTTTGTATAAACATACTTTATCTCTCATACTAGGAAGTGTTTCATTTTCAAGAAATCGTAGCTGTA
CGGTCTACACGAGTCTGTTTAGCAAACAATATTTGTATGAAATAGAGAGTATGATCCTTCACAAAGTAAAGTCTTAGCATCGACAT

23,120

PARK7

PARK7-201

PARK7-201

TGTTTGGTAAGAGCCTCTTGATTTTGAAGAATACTTTGCTGTTGCAGTTTTTGTGTTGTTAGAGAAGGGGCTGTGTTGCCAG
ACAAACCATTCTCGGAGA ACTAAA ACTTCTTATGAAACGACAACGTCAAAAACAACAACATCTCTTCCCCAGACACAACGGGTC

23,205

PARK7

PARK7-201

PARK7-201

GCTGATGTTGAATTCCTGGGCTCAAGCAATTTTCTACCTAGGCCTCCCCAATTGCTGGGATTACAGGCATGAGCCACTGTGCCA
CGACTACAACCTAAGGACCCGAGTTCGTTAAAAGATGGATCCGGAGGGGTTAACGACCCTAATGTCCGTA CTCTCGGTGACACGGT

23,290

PARK7

PARK7-201

PARK7-201

GGCACTATTGCGATTTTTTAAACATGGGCTTTTCTATATCTGCACTTAGATCTTTTTATTTTTATTCTTAGGTCTACTGCTCTG
CCGTGATAACGCTAAAAAATTTGTACCCGAAAAGATATAGACGTGAATCTAGAAAAATAAAAAAAGAATCCAGGATGACGAGAC

23,375

PARK7

PARK7-201

110
G P T A L
ENSE00002898274

PARK7-201

TTGGCTCATGAAATAGGTTTTGGAAGTAAAGTTACAACACACCCCTCTTGCTAAAGACAAAATGATGAATGGAGGTAAGTATATGC
AACCGAGTACTTTATCCAAAACCTTCATTTCAATGTTGTGTGGGAGAACGATTTCTGTTTTACTACTTACCTCCATTTCATATACG

23,460

PARK7

PARK7-201

115 120 125 130 135
L A H E I G F G S K V T T H P L A K D K M M N G

ENSE00002898274

PARK7-201

TTGTTTTTGTGTTGTTGTTGTTGTTTTTTGAGATGGAGTCTCGCTCCATCGCCAGGCTGGAGTGCAGTGGCGTGATCTTGGCTTAC
AACAAAAACAAACAAACAAACAAAAAATCTACCTCAGAGCGAGGTAGCGGGTCCGACCTCACGTACCGCCTAGAACCGAATG

23,545

PARK7

PARK7-201

PARK7-201

TGCAATCCCTGCCTCCCGGGTTCAAGCGATTCTTCTCTCTCAGCCTCCTGAGTAGCTGGGATTACAGGCGCATGCCATCACACCC
ACGTTAGGGACGGAGGGCCCAAGTTCGCTAAGAAGAGAGAGTTCGGAGGACTCATCGACCCTAATGTCCGCGTACGGTAGTGTGGG

23,630

PARK7

PARK7-201

PARK7-201

AGCTAATTTTTGTATTTTTAGTAGAGATGGAGTTTCACCATGTTGGTCAGGCTGGTCTCAAACCTTTTTTTTTTTTTTTTTTTTTT
TCGATTA AAAACATAAAAAATCATCTCTACCTCAAAGTGGTACAACCAGTCCGACCAGAGTTTGAGAAAAAAAAAAAAAAAAAAAAA

23,715

PARK7

PARK7-201

PARK7-201

TTTTTTTTTGAGACAGAGTCTCGCTCTGTTGCCAGGCTGGAGTGCCATGGTGC GTTCTCTGCTCACTGCAACTTCCGCCTCCCG
AAAAAAAAAACTCTGTCTCAGAGCGAGACAACGGGTCCGACCTCACGGTACCACGCAAGAGACGAGTGACGTTGAAGGCGGAGGGC

23,800

PARK7

PARK7-201

PARK7-201

GGTTCAAGTGATTCTTCTGCCTCAGCCTCCTGAGTAGCTGGGATCACAGGTGTGCTCCACCACGCCTGGCTAATTTTTGTATTTT
CCAAGTTCAC TAAGAAGACGGAGTTCGGAGGACTCATCGACCCTAGTGTCCACACGAGGTGGTGC GGACCGATTAAAAACATAAAA

23,885

PARK7

PARK7-201

PARK7-201

TTAGTAGAGATGGGGTTTCTCCATGTTGGTCATGCTGGTCTTGAACCTTCTGACCTTGTGATCCACCCGCCTCAGCCTCTGAAAAGT
AATCATCTCTACCCCAAAGAGGTACAACCAGTACGACCAGAACTTGAAGACTGGAACACTAGGTGGGCGGAGTCTGGAGACTTTCA

23,970

PARK7

PARK7-201

PARK7-201

GCTGGGATTACAGGCATGAGCCACCGCGCCCAGTCTCGAACTCTTGACCTTGTGATCTGCCTGCCTCAGCCTCCCAGAGTGCTGG
CGACCCTAATGTCCGTACTCGGTGGCGCGGGTCAGAGCTTGAGAACTGGAACACTAGACGGACGGAGTCTGGAGGGTCTCACGACC

24,055

PARK7

PARK7-201

PARK7-201

GATTACAGGTGTTAGCCACCGCGCCTGGCCCATATGCCTGTGTGTGGTTTTTTTTTTTTTTTTTTGAGATGGAGTCTCTCGCTCTGT
CTAATGTCCACAATCGGTGGCGCGGACCGGGTATACGGACACACACCAAAAAAAAAAAAAAAAAAACTCTACCTCAGAGAGCGAGACA

24,140

PARK7

PARK7-201

PARK7-201

TGCCCAGGCTGGAATGCAGTGGTGTGATCTCAGCTCACTGCAACCTCCGCCTCCCGGGTTCAAGGGACTCTCCTGTCTCAGCCTC
ACGGGTCCGACCTTACGTCAACCACACTAGAGTCGAGTGACGTTGGAGGCGGAGGGCCCAAGTTCCTGAGAGGACAGAGTCGGAG

24,225

PARK7

PARK7-201

PARK7-201

CCGAGTAGCTGGGATTACAGGCATGTGCCACCACAAGTTTCTGTAGACTGGGCACAGTGGCTTCCGCCTGTAATCCCAGTACTT
GGCTCATCGACCCTAATGTCCGTACACGGTGGTGTTCAAAGAACATCTGACCCGTGTACCCGAAGGCGGACATTAGGGTTCATGAA

24,310

PARK7

PARK7-201

PARK7-201

TGGGAGGCTGAGGCGGGTGGATCGCTTGAGCCCCGAGTTCGAGACCAGCCTGGGCAACATGGTTAAACTCCATCTCTACTAAAAA
ACCCTCCGACTCCGCCACCTAGCGAACTCGGGGCTCAAGCTCTGGTCTGGACCCGTTGTACCAATTTGAGGTAGAGATGATTTTTT

24,395

PARK7

PARK7-201

PARK7-201

TACAAAAACATTAGCCAGGCATGGTGTGATGCACACTGGTAGTTGCAGCTGCTCAGGAGGCTGAGGTGGGATGATCGCTTTAAGCC
ATGTTTTTTGTAATCGGTCCGTACCACTACGTGTGACCATCAACGTCTGACGAGTCTCCGACTCCACCCTACTAGCGAAATTCGG

24,480

PARK7

PARK7-201

PARK7-201

TGGGAGGTCAAAGCTATGGTGAGCTGTGATCTCGCCACTGAACTCCAGCCTGGAGGACAAAGCAAGACCCCTATCAAAAAAAAAAAAA
ACCCTCCAGTTTCGATACCACTCGACACTAGAGCGGTGACTTGAGGTCGGACCTCCTGTTTCGTTCTGGGATAGTTTTTTTTTTTT

24,565

PARK7

PARK7-201

PARK7-201

AAAAAAAAAGTTTCTTGTGTACCTGTAGAATTTTATCTATCACATACTCATTATCCTTTTTATTTTAACTAAAATGAGATCTACT
TTTTTTTTTCAAAGAACACATGGACATCTTAAAATAGATAGTGTATGAGTAATAGGAAAAATAAAATTGATTTTACTCTAGATGA

24,650

PARK7

PARK7-201

PARK7-201

AAATGTATTGTTCTGCAGCTTGCTTTTTTAACTTAATGTTAATATCTTATGTTATCTTTTAAACAGCACATGTAGATTTAGATTT
TTTACATAACAAGACGTCGAACGAAAAAATTGAATTACAATTATAGAATACAATAGAAAATTGTCGTGTACATCTAAATCTAAA

24,735

PARK7

PARK7-201

PARK7-201

GCTTCATCCTTGTTAAGTACAGCTGCTAGTCCAGTGTTGGAATGTGCCATGCTGTATGTAACCTTCTCCTGGGGGTGGGCATGAA
CGAAGTAGGAACAATTCATGTCGACGATCAGGTCACAACCTTACACGGTACGACATACATTGGAAGAGGACCCCCACCCGTA

24,820

PARK7

PARK7-201

PARK7-201

GGTGGTTTTCTGCTTTTGCCTTGTAACCATGCCATAATGATCATCCTTGAATGCCGCTGTGAGCATATCTGAGCTCCACTTTA
CCACCAAAAAGACGAAAACGGGAACATTTGGTACGGTATTACTAGTAGGAACCTTACGGCGACACTCGTATAGACTCGAGGTGAAAT

24,905

PARK7

PARK7-201

PARK7-201

AAAGTGATGCACTTTTCATTATACTGCATGTTTTTTAATTACTAACTTTAGTTTTTTAGAGCAGTTTTTAGGTTACAGCCAAAT
TTTCACTACGTGAAAAGTAATATGACGTACAAAAAATTAATGATTTGAAATCAAAAAATCTCGTCAAAATCCAAGTGTCGGTTTA

24,990

PARK7

PARK7-201

PARK7-201

TCCCGTCTACCTTGACCCACTCGCCACTCCCCAGGCCCCCGCCCTGGCCATGCATAGCCTCCCCTACTATCAACATCCTGCACC
AGGGCAGATGGAACCTGGGTGAGCGGTGAGGGGTCCGGGGCGGGGACCGGTACGTATCGGAGGGGATGATAGTTGTAGGACGTGG

25,075

PARK7

PARK7-201

PARK7-201

AGAATCTGTACCCACATTGACACATCATCATCCAGAGTCCACAGTTTACATGAGGGTTCTCTCTTGCTGTTGTACATTCTACATA
TCTTAGACATGGGTGTAAGTGTGTAGTAGTAGGTCTCAGGTGTCAAATGTACTCCCAAGAGAGAACGACAACATGTAAGATGTAT

25,160

PARK7

PARK7-201

PARK7-201

CAGTTACATTTGATCCAGAGCAGTGTTCCTGAAAATCCATGGTTTGTATTTATTTAATGTATTTGAGACAGAGGCTTGCTC
GTCAATGTAAACTAGGTCTCGTCCAAAAAGGACTTTTAGGTACCAAACAAATAAATAAATTACATAAACTCTGTCTCCGAACGAG

25,245

PARK7

PARK7-201

PARK7-201

TGTCACCCAGGCAGGAGTGCAGTGGTGTGATCTCAGTTTCATTGTAACCTCCACCTCTTGGGATCAGGCAATCCTCTCACCTCAGC
ACAGTGGGTCCGTCCCTCACGTCACCACACTAGAGTCAAGTAACATTGGAGGTGGAGAACCCTAGTCCGTTAGGAGAGTGGAGTCG

25,330

PARK7

PARK7-201

PARK7-201

CTCCCGAGTAGCTGGAACATATGGGTATGAGCCACCACACTTGGCTAATTTTTAAATTTTTTTGTAGAGACAGGGTCTAACCATAT
GAGGGCTCATCGACCTTGATACCCATACTCGGTGGTGTGAACCGATTAAAAATTTAAAAAACATCTCTGTCCCAGATTGGTATA

25,415

PARK7

PARK7-201

PARK7-201

TGCACAGTCTGGTCTTGAACCTCCTGGCCTCAAGCGATCCTTCTGGCTTGGCCTCCCAAAGTACTAGGATTACAGATGTGAGCCAC
ACGTGTCAGACCAGAACTTGAGGACCGGAGTTCGCTAGGAAGACCGAACC GGAGGGTTTCATGATCCTAATGTCTACACTCGGTG

25,500

PARK7

PARK7-201

PARK7-201

TGTGCCCGCTCATGGTTTTATTTTAGTTGCTAGAAAGATACTATGTTATCATTAAAACGATCTGTTTGAAAATTGGTACTTTTT
ACACGGGGCGAGTACCAAAATAAAATCAACGATCTTTCTATGATACAATAGTAATTTTGCTAGACAAACTTTTAACCATGAAAAA

25,585

PARK7

PARK7-201

PARK7-201

GCTGGATGCAGTGAATCCCAGCACTTGGGGAGGCCGGTGGGGGAGGTAGATCACGAGGTCAGGAGATCGAGAC
CGACCTACGTCACTGAGTGC GGACATTAGGGTCGTGAACCCCTCCGGCCACCCCTCCATCTAGTGCTCCAGTCTCTAGCTCTG

25,670

PARK7

PARK7-201

PARK7-201

CATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAATGTAATAAAAAAATTAGCTGGGCGTGGTGGCGGGCACCTGTAGTCCC
GTAGGACCGATTGTGCCACTTTGGGGCAGAGATGATTTACATGATTTTTTTAATCGACCCGCACCACCGCCCGTGGACATCAGGG

25,755

PARK7

PARK7-201

PARK7-201

AGCTACTCAGGAGGCTGAGGCAGGAGAGTGGCGTGAACCCAAGAGGTGGAGCTTGCAGTGAGCTGAGATCGTGCCACTGCACTCC
TCGATGAGTCTCCGACTCCGTCCTCTCACCGCACTTGGGTTCTCCACCTCGAACGTCACTCGACTCTAGCACGGTGACGTGAGG

25,840

PARK7

PARK7-201

PARK7-201

AGCCTGGGCAACAGAGTGAGACTCCATCTCAAAAAAAAAAAAAAAAAAATTGGTACTTTTTAATAAAAGTCTCTGGTTTTCTGGGCAT
TCGGACCCGTTGTCTCACTCTGAGGTAGAGTTTTTTTTTTTTTTTTTAACCATGAAAAATTATTTTCAGAGACCAAAGACCCGTA

25,925

PARK7

PARK7-201

PARK7-201

TTTAAATGTAGGAATTTAATTTACTTTAAGCTCATGGAGGGATTTTAGAGCGTTGAAAGAAATGGAAAGAACAGAACTGGGCTCC
AAATTTACATCCTTAAATTAATGAAATTCGAGTACCTCCCTAAAATCTCGCAACTTTCTTTACCTTTCTTGTCTTGACCCGAGG

26,010

PARK7

PARK7-201

PARK7-201

CTTTGTGATGTCTTCAGAGGGAAGACAAGCGGAGCGCGCTCCTGCACTACCTGAAGGTGTGCCTGTTGCATCTGTTTTCTTTAG
GAAACACTACAGAAGTCTCCCTTCTGTTTCGCTCGCGCGAGGACGTGATGGACTTCCACACGGACAACGTAGACAAAAAGGAAATC

26,095

PARK7

PARK7-201

PARK7-201

TGCCTCAAAAACATTGAGGTTGGTCAGGCATAGAAAAAGATCAGATTGTTGATGCTCACACTTGGAGTTTACAAAGCACGTTCCC
ACGGAGTTTTTGTAACTCCAACCAAGTCCGTATCTTTTTCTAGTCTAACAACTACGAGTGTGAACCTCAAATGTTTCGTGCAAGGG

26,180

PARK7

PARK7-201

PARK7-201

GTACGTTATCTTGGTGGAGCTTCCCTGGTCCCCAGTGCCCAAGGCAGGTGGCATCATCCTGGCTTCAAAAACAAGGAGAGACT
CATGCAATAGAACCACCTCGAAGGACCAGGGGTCACGGGTCGTTCCGTCCACCGTAGTAGGACCGAAGTGTGTTTCTCTCTGA

26,265

PARK7

PARK7-201

PARK7-201

GAGGCCAGAGCTCAAGCCCAGCCCTCTGCCTTGCATCCAGTTTTGGCTTCCTGCCCTCCCCTGCTCTGTGGTAGCAAAAAGGCTC
CTCCGGTCTCGAGTTCGGGTCGGGAGACGGAACGTAGGTCAAAACCGAAGGACGGGGAGGGGACGAGACACCATCGTTTTCCGAG

26,350

PARK7

PARK7-201

PARK7-201

CCACACATTTAAGTTACCAGGTGTTGGATTTAGTCAGTAACCTCTATTATAAGAAATGGATACTTGAAATGTCTACTCCTTCAGG
GGTGTGTAATTC AATGGTCCACAACCTAAATCAGTCATTGGAGATAATATTCTTTACCTATGAACTTTACAGATGAGGAAAGTCC

26,435

PARK7

PARK7-201

PARK7-201

ACACTTCGAGAGGTAGGGCTGCAGTCATCACCTGGGGTCTGCTCTGGGTGAGGCCCTTGTCCTCACTGTGAACTTGAAAGATCA
TGTGAAGCTCTCCATCCCGACGTCAGTAGTGGACCCCCAGACGAGACCCACTCCGGGAACAGGAGTGACACTTGAACCTTTCTAGT

26,520

PARK7

PARK7-201

PARK7-201

GTGTGACAGTTTCTTCTCAGATAAGCAATCCCATCTGAAGACCATAGTCTTTTTTCTTTTTTCTTATCTTTTTTTTGATAGATT
CACACTGTCAAAGAAGAGTCTATTCGTTAGGGTAGACTTCTGGTATCAGAAAAAAGAAAAAAGAATAGAAAAAACTATCTAA

26,605

PARK7

PARK7-201

PARK7-201

CAGGGTCTCACTATGTTGCCCAAGCAGTACTTAAACTCCTGGGCTCAAATGACCCTCCACCTTGGTCTCCCAAAGTGCTGGAAT
GTCCAGAGTGATACAACGGGTTTCGTCATGAATTTGAGGACCCGAGTTTACTGGGAGGGTGGAACCAGAGGGTTTCACGACCTTA

26,690

PARK7

PARK7-201

PARK7-201

TACAGGTGTGTGCTACCAGCTCCAGTCCCCATAATCTTTTAATTCCTCCGATTTTAGAATAAGTCAGTTATAACTGTAATGTGTG
ATGTCCACACACGATGGTTCGAGGTTCAGGGGTATTAGAAAAATTAAGGAGGCTAAAAATCTTATTCAGTCAATATTGACATTACACAC

26,775

PARK7

PARK7-201

PARK7-201

ATTCCGTTTCTCATTTGTCCACTGTTTGATGGCATCCGCATGCCTGGTCCCATACCCGAGCACTGAAGAGCAGGGTCTCTGGAGC
TAAGGCAAAGAGTAAACAGGTGACAAACTACCGTAGGCGTACGGACCAGGGTATGGGCTCGTGACTTCTCGTCCCAGAGACCTCG

26,860

PARK7

PARK7-201

PARK7-201

CTGGCATCGTGGGGTGGCCCTCAGCTTCCCCACTCACTGTGGGAAGTTTCTTAGTGTCTCTGAGCCTGTTTCCTCATCCGTTGC
GACCGTAGCACCCACCCGGGAGTCTGAAGGGGTGAGTGACACCCCTTCAAAGGAATCACAGAGACTCGGACAAAGGAGTAGGCAACG

26,945

PARK7

PARK7-201

PARK7-201

CTGAGGATAAACCTGCTTCAGGATTGTTGGTGAAAAGACTTCCCTCACCTAGCTTCTGTAACGCCACTGCATGCCACCACTGCTG
GACTCCTATTTGGACGAAGTCTTAACAACCACTTTTCTGAAGGGAGTGGATCGAAGACATTGCGGTGACGTACGGTGGTGACGAC

27,030

PARK7

PARK7-201

PARK7-201

AGTACTGTTTGTGGCTAGGTTGGTGTCAATTCTCATTTTACCAGAAAGTGAAGCTCTGAGAGGTCAGACAGCCACTAAATGGCAG
TCATGACAAACAAACGATCCAACCACAGTAAGAGTAAAATGGTCTTTCACTTCGAGACTCTCCAGTCTGTCGGTGATTTACCGTC

27,115

PARK7

PARK7-201

PARK7-201

ACCTGGGATTTGAACCCAGAACTCTGCTCAGGGGTCAACTGACTGCTCCCCAAAGGCCAGGTGGTAAATATTGCAGGCTTTCTGG
TGGACCTAAACTTGGGTCTTGAGACGAGTCCCCAGTTGACTGACGAGGGGTTTCCGGTCCACCATTTATAACGTCCGAAAGACC

27,200

PARK7

PARK7-201

PARK7-201

GACTTCAGATCTCTGGCAGCTACTCAACTGTTGCACCTCCACAATAGCTACAGACAGTACTAAACACGCAGGGTGGCTTTGTGCC
CTGAAGTCTAGAGACCGTCGATGAGTTGACAACGTGGAGGTGTTATCGATGTCTGTCATGATTTGTGCGTCCCACCGAAACACGG

27,285

PARK7

PARK7-201

PARK7-201

AGTGAAGCTGCATTTGCAAAAACAGGCAGCAACCTGGCCTCGGCCCTCAGGCTTGTGCTTGCTGACCTGTGTCCTGTGTCTTTTG
TCACTTCGACGTAACGTTTTTGTCCGTCGTTGGACCGGAGCCGGGAGTCCGAACAGCAACGACTGGACACAGGACACAGAAAAC

27,370

PARK7

PARK7-201

PARK7-201

TTTTTTTTTTTTTTTTGAGACAGAGTCTCTCTCTGTGCATCCAGGCTGGAGTACAGTGGCACGATCTGTGCTCACGGCAAGCTCCG
AAAAAAAAAAAAAAAAACTCTGTCTCAGAGAGAGACAGTAGGTCGACCTCATGTACCGTGTCTAGACACGAGTGCCGTTTCGAGGC

27,455

PARK7

PARK7-201

PARK7-201

CCTCCCAGGTTTACGCCATTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGACTACAGGTGCCCGCCACCACGCCTGGCTTATTTTT
GGAGGGTCCAAGTGCGGTAAGAGGACGGAGTCGGAGGGTTTCATCGACCTGATGTCCACGGGCGGTGGTGCGGACCGAATAAAAA

27,540

PARK7

PARK7-201

PARK7-201

TGTATTTTTAGTAGAGACGGGGTTTTTCATCGTGTTAGCCAGGATGGTCTCGATCTCCTGACCTTGTGATCTGCCCTCCTCGGCTTC
ACATAAAAAATCATCTCTGCCCCAAAAGTAGCACAATCGGTCTACCAGAGCTAGAGGACTGGAACACTAGACGGGAGGAGCCGAAG

27,625

PARK7

PARK7-201

PARK7-201

CCCATGTGCTGGGATTACAGGCGTGAGCCACTATGCCAGCCCCCCCCGCCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGAGACGG
GGGTACACGACCCTAATGTCCGCACTCGGTGATACGGGTCGGGGGGGCGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAACTCTGCC

27,710

PARK7

PARK7-201

PARK7-201

AGTCTTGCTCTCTCACCCAGGCTGAAGTGCAAGTGACGCATCTCGGCTCACTGCAACCTCCGCCTCCCGGGTTCAAGTGATTCTCC
TCAGAACGAGAGAGTGGGTCCGACTTCACGTCCTGCGTAGAGCCGAGTGACGTTGGAGGCGGAGGGCCCAAGTTCCTAAGAGG

27,795

PARK7

PARK7-201

PARK7-201

TGTCTCAGCCTCCTGAATAGCTGGGATTACAGGTAAGTGGCCGCCAGGCCAGCTAATTTTTGTATTTTTTTTTTTTTTTTTTAGTA
ACAGAGTCGGGAGGACTTATCGACCCTAATGTCCATGACCGGCGGTCCGGGTCGATTA AAAACATAAAAAAAAAAAAAAAAAAATCAT

27,880

PARK7

PARK7-201

PARK7-201

GAGGCGGGGTTTACCATGTTGGTCAGGCTGGTCTTGAAATCCTGACCTCAGGTGATCCACCTGCCTTGGCGTCCCAGAGTGTTG
CTCCGCCCAAAGTGGTACAACCAAGTCCGACCAGA AACTTTAGGACTGGAGTCCACTAGGTGGACGGAACCGCAGGGTCTCACAAAC

27,965

PARK7

PARK7-201

PARK7-201

GAATTACCGGCATGAGCCACTGCATCCGGCTTCCCATTGCTTTTTCTCTGAAGAGACTTTAAGACTTGGAGTCTGGTTTTAAAAA
CTTAATGGCCGTA CTGCGTACGTTAGGCCGAAGGGTAACGAAAAAGAGACTTCTCTGAAATTCTGAACCTCAGACCAAATTTTTT

28,050

PARK7

PARK7-201

PARK7-201

AATAAAGAAATAAAAAATCAATGCCTTCTGCTGGTTGAACGGGAAGTGTAAAAATCTGAATTCGCTATAGGGTCACAATCCCAGCCT
TTATTTCTTTTATTTTTAGTTACGGAAGACGACCAACTTGCCCTTACATTTTAGACTTAAGCGATATCCCAGTGTTAGGGTCGGA

28,135

PARK7

PARK7-201

PARK7-201

CCAGTTCGCACAGTGCCTTCCTGGTGCTGATGGGGTGCATGTTCTGTCTTCGCCACTAGGTGGAGGCAGTTGGTAACCTTAAACC
GGTCAAGCGTGTACGGAAGGACCACGACTACCCACGTACAAGACAGAAGCGGTGATCCACCTCCGTCAACCATTGGAATTTGG

28,220

PARK7

PARK7-201

PARK7-201

TTTTGCTTCTCGTGGTTAAAAGTCTGACAAGAACCCTAGAACCTTTAAGCATATTTAACCAGTTTTAAGCCCTGTTTGCGATGTTT
AAAACGAAGAGCACCAATTTTCAGACTGTTCTTGGCATCTTGGAAATTCGTATAAATTGGTCAAATTCGGGACAAACGCTACAAA

28,305

PARK7

PARK7-201

PARK7-201

TAGCCACAAAGATACTGTTTCAGTGAACCATTTACAGTTGTGCCTCGCGTTGTCCCACTCTCAGCTGTGCATCTCACTGTCGCTCT
ATCGGTGTTTCTATGACAAGTCACTTGGTAAATGTCAACACGGAGCGCAACAGGGTGAGAGTCGACACGTAGAGTGACAGCGAGA

28,390

PARK7

PARK7-201

PARK7-201

GGAAGACCTAGCCAGCCAGTTTCTAGGTTAGCATTTGAAATGGTCTTGGCCTGGTTTAACCATCAGTAAATGAGGCCAGATTAT
CCTTCTGGATCGGGTTCGGTCAAAGATCCAATCGTAAACTTTACCAGAACCGGACCAAATTTGGTAGTCATTTACTCCGGTCTAATA

28,475

PARK7

PARK7-201

PARK7-201

GATAAACCTTTTCCCTCAAACCTAGGGATCCTCTTTTTCTCTACAATAGTTAAATTGGAAATTGTTTATGTA CTACTCTATTCAATTA
CTATTTGGAAAAAGGGGAGTTTGATCCCTAGGAGAAAAAGAGATGTTATCAATTTAACCTTTAACAAATACATGAGATAAGTAAAT

28,560

PARK7

PARK7-201

PARK7-201

TTTTGGTGGGTGACCTGATTTTTTAAATTTTTTAGATTAGTCAAGCACAGTAGTGAGAAGAGGAGAAAGAGTAGAACAAGGTGTA
AAAACCACCCACTGGACTAAAAAATTTAAAAAATCTAATCAGTTTCGTGTCATCACTCTTCTCCTCTTTCTCATCTTGTTCACAT

28,645

PARK7

PARK7-201

PARK7-201

ACTGCCTGTGAACGATCAATTGAGATAACTCACTGCCTTCGACCAGCAGTGGCTTGGTTTCTAATGACAGTAAGACAAGTTCCCTA
TGACGGACACTTGCTAGTTAACTCTATTGAGTGACGGAAGCTGGTCGTCACCGAACCAAAGATTACTGTCAATTCTGTTCAAGGAT

28,730

PARK7

PARK7-201

PARK7-201

TAGCCATTGTTAATCTCCTTGGAAAAGAAATGAACACTGTGTGGTTTTCAGAAGCTCATTAAATATAGCAGAAGCACTCTGCTTCTG
ATCGGTAACAATTAGAGGAACCTTTTCTTTACTTGTGACACACCAAAGTCTTCGAGTAATTATATCGTCTTCGTGAGACGAAGAC

28,815

PARK7

PARK7-201

PARK7-201

TTTGAAGGGAGGTTTTTCAGATGAATTTTTCTGCGTGTTTCATTGAACAGACGTTTTCTAAGCTCCTCCTTAGTGCCCTGGCACTGGG
AAACTTCCTCCAAAAGTCTACTTAAAAAGACGCACAAGTAACTTGTCTGCAAAGGATTCGAGGAGGAATCACGGACCGTGACCC

28,900

PARK7

PARK7-201

PARK7-201

AACAGAAGAAGGAAGAAGAGAAAAGCTGTGCCCTCAGGGTGTTCTCAGGTCCGCACTGAGCGGTGGTGACCAGAGCCACCCGCCTG
TTGTCTTCTTCTTCTTCTTTTCGACACGGGAGTCCCAACAAGAGTCCAGGCGTGACTCGCCACCACTGGTCTCGGTGGGCGGAC

28,985

PARK7

PARK7-201

PARK7-201

CCTGCGTGGCCGGTGATCAGGATAGAGCAGGAGTTACAGAGGAGCTTTGTCACTTCCCCCTCCGCTAAATCTGTTCTGTGGCC
GGACGCACCCGGCCACGTAGTCTATCTCGTCTCAAGTGTCTCCTCGAAACAGTGAAGGGGGGAGGCGATTTAGACAAGACACCCGG

29,070

PARK7

PARK7-201

PARK7-201

CCACATCACTGAGTGGTGTCAACCATCATCCAGTCACTGGGACAGGCAGCTGGGAGTCATCCTTGAAGCCTCCTCACCTAGGCCT
GGTGTAGTGACTCACCACAGTGGTAGTAGGTCAGTGGACCCTGTCCGTGACCCCTCAGTAGGAACCTTCGGAGGAGTGGATCCGGA

29,155

PARK7

PARK7-201

PARK7-201

TCATTGCAAACCTCCATTTCTTCTGGATCACTGTCACCAGCCTAGTGCAGGCACCACCAGCTTCTACCCAGAGAGCAGGTTCCCTT
AGTAACGTTTGGAGGTAAAGGAGACCTAGTGACAGTGGTCGGATCACGTCCGTGGTGGTTCGAAGATGGGTCTCTCGTCCAAGGAA

29,240

PARK7

PARK7-201

PARK7-201

TCCATCTCCTTCTGGTCCCAGCCAGTCTCTGTGCGAAGGCCAGACCCGACAGAGGGCTCCAGGCCCGTGACATGGAGTTCAGCGT
AGGTAGAGGAAGACCAGGGTCGGGTCAGAGACACGCTTCCGGTCTGGCGTCTCCCGAGGTCCGGGGCACTGTACCTCAAGTCGCA

29,325

PARK7

PARK7-201

PARK7-201

GACCTTCAGGTGCTGGAGAGAGTTGGCAAGGGCTTTCCATGGGGAAGTGGCTATGCCCTGCTTTGCACTCTGGACAGTTAGCTTT
CTGGAAGTCCACGACCTCTCTCAACCGTCCCGAAAAGGTACCCCTTGACCGATACGGGACGAAACGTGAGACCTGTCAATCGAAA

29,410

PARK7

PARK7-201

PARK7-201

TGGGTGCTGGGCATGGATCGAAGGGGCGCACAGCCGGAAGGGAGAGCTGTAATCATGCAGAGATCCTTCCCTTTAAAGCAGGGG
ACCCACGACCCGTACCTAGCTTCCCGCGTGTGCGCCTTCCCTCTCGACATTAGTACGTCTCTAGGAAGGGGAAATTTTCGTCCCC

29,495

PARK7

PARK7-201

PARK7-201

ACAGGCGAGAAAGGAGATCGAGTCAAGAATGGTGTGGTGCCTTTGACCTCACACTTCAGGGGTGCCTCCTGTGTGCCATGGAT
TGTCCGCTCTTTCTCTAGCTCAGTTCTTACCACAAACCACGGAACTGGAGTGTGAAGTCCCCACGGAGGACACACGGTACCTA

29,580

PARK7

PARK7-201

PARK7-201

ATCATTGGCCAGACAGGGACTGATGAAGACCCAGCCTTTTTAAAGAGTAAACAATAAACAAGGAAATGAAATGTTTCATAGATTGT
TAGTAACCGGTCTGTCCCTGACTACTTCTGGGTCGGAAAAATTTCTCATTTGTTATTTGTTCTTTACTTTACAAGTATCTAACA

29,665

PARK7

PARK7-201

PARK7-201

GATAGATTGTATCAATGCTGCGAGGGCAGTAAATAGAATGCGGTGATAGAGTCAATAGAGGTACCTAATTTGGGGAGGTGGGGT
CTATCTAACATAGTTACGACGCTCCCGTCATTTATCTTACGCCACTATCTCAGTTATCTCCATGGATTAAACCCCTCCACCCCA

29,750

PARK7

PARK7-201

PARK7-201

GGTCACAGATACCCTCTCTGAGGGGTTTTTGTGGATGCTGAACTGAAGGAGCAAGGAACTGGAAAGAGCTGGTCTCTGGGTGGA
CCAGTGTCTATGGGAGAGACTCCCCAAAAACAACACTACGACTTTGACTTCCTCGTTCCTTGACCTTTCTCGACCAGAGACCCACCT

29,835

PARK7

PARK7-201

PARK7-201

GGGAGCAGCCCTTGAGCTCTTCCTGGAGCAGGAGAGAACGTGTTGTATACAGTAAGGGGAAGCTCCAGGTGGGAGAGTGATAGGGA
CCCTCGTCGGGAACTCGAGAAGGACCTCGTCCTCTCTTGCACAACATATGTCATTCCCTTCGAGGTCCACCCTCTCACTATCCCT

29,920

PARK7

PARK7-201

PARK7-201

TGGGTGTGGGGAGGGAGGTTAGGCTCTGTGTGCAGTGGAGAGGCTGGTACTACCTGCTGTGGAGGGGCAGAGCTCAGGGCATCC
ACCCACACCCCTCCCTCCAATCCGAGACACACGTCACCTCTCCGACCACTGATGGACGACACCTCCCCGTCTCGAGTCCCGTAGG

30,005

PARK7

PARK7-201

PARK7-201

ATGCTTAAGAGTCCCAGTTTTGGTATTATATTTGCCAAGAAATAGCCAACCGGCGGGCCTGGAGGTGCGGGGATGCGGAAGGAAA
TACGAATTCTCAGGGTCAAAACCATAATATAAACGGTTCTTTATCGGTTGGCCGCCCGGACCTCCACGCCCTACGCCTTCCTTT

30,090

PARK7

PARK7-201

PARK7-201

PCR Forward

ATGCATACCCGCCTCCATTACGTTG

GTAGTCCTTGAGAGGGAATGTGGTTTCTACCTGCACACGCACACTCACATGCATACCCGCCTCCATTACGTTGTGCTGTGGTTGT
CATCAGGAACTCTCCCTTACACCAAAGATGGACGTGTGCGTGTGAGTGTACGTATGGGCGGAGGTAATGCAACACGACACCAACA

30,175

PARK7

PARK7-201

PARK7-201

TTTTGAGGCATCAGAGGGTGTGCGTGCCGCCACATGTTGATTGGGGTGGCTTCTGCGTTCAGCGCTGCCGCATCCCTTACCCTT
AAAACCTCCGTAGTCTCCACACGCACGGCGGTGTACAAC TAACCCACCGAAGACGCAAGTCGCGACGGCGTAGGGAAAGTGGGAA

30,260

PARK7

PARK7-201

PARK7-201

CCCCGGCACTTCAGAATTGACACTTGAGCTTTGTTGTAATAAGTGATGTGAGTAAGTGTCAATTCACCGACATCTCCCCAACACT
GGGGCCGTGAAGTCTTAACTGTGAACTCGAAACAACATTTATCACTACACTCATTGACAGTAAGTGGCTGTAGAGGGGGTTGTGA

30,345

PARK7

PARK7-201

PARK7-201

TAAAGTCTTAGCAGCTGCATTTAACTCACGCATATTTGTTTCATTCTAACAGTGGTTTCTGTCACCCCTTTGCTCTGCACAGTTTT
ATTTCAGAATCGTCGACGTAAATTGAGTGCGTATAAACAAGTAAGATTGTCACCAAAGACAGTGGGAAACGAGACGTGTCAAAA

30,430

PARK7

PARK7-201

PARK7-201

AAAAATACCTTTGTAGGGGGCTTCTAAGAGCTTGGAGTGCCTAGTAAATGTTTTTGAATGGTTAGCTACAGTGTGGGTTTATAT
TTTTTATGGAAACATCCCCCGAAGATTCTCGAACCTCACGGATCATTACAAAACTTACCAATCGATGTCACAACCCAAATATA

30,515

PARK7

PARK7-201

PARK7-201

GCTGTAATAGTGAATTTAATTGGTAAGTAATCGTCTTTCTCGTACATAGCCCATTAGGATGTCACCTTTTCTGTTTCTACTTTG
CGACATTATCACTTAAATTAACCATTATTAGCAGAAAAGAGCAGTGTATCGGGTAATCCTACAGTGGAAAAGACAAAAGATGAAAC

30,600

PARK7

PARK7-201

PARK7-201

Donor Template WT -> SNV

CTACTCTGAGAATCGTGTGGAAAAAGACGGCCTGATTCTTACAAGCCGGGGGCCTGGGACCAGCTTCGAGTT

CAGGTCATTACACCTACTCTGAGAATCGTGTGGAAAAAGACGGCCTGATTCTTACAAGCCGGGGGCCTGGGACCAGCTTCGAGTT
GTCCAGTAATGTGGATGAGACTCTTAGCACACCTTTTTCTGCCGGAATAAGAATGTTTCGGCCCCGGACCCTGGTTCGAAGCTCAA

30,685

PARK7

PARK7-201

G H Y T Y S E N R V E K D G L I L T S R G P G T S F E F

ENSE00001941967

PARK7-201

Donor Template WT -> SNV



PAM Protospacer Sequence



Donor Template WT -> SNV

TGCGC TGCAATTGTTGAAGCCCTGAAT

TGCGC TGCAATTGTTGAAGCCCTGAATGGCAAGGAGGTGGC6GCTCAAGTGAAGGCTCCACTTGTCTTAAAGACTAGAGCAGC
ACGCG ACGTTAAACAACCTTCGGGACTTACCGTTCCTCCACCGCAGTTCACCTCCGAGGTGAACAAGAATTTCTGATCTCGTCG

30,770

PARK7

PARK7-201

165 170 175 180 185 190
A L A I V E A L N G K E V A A Q V K A P L V L K D

ENSE00001941967

PARK7-201

Donor Template WT -> SNV

Protospacer Sequence

SNV

ACGCGAACGT

gRNA Protospacer

GAACTGCGACGATCACTTAGAGAAAACAGGCCGTTAGGAATCCATTCTCACTGTGTTTCGCTCTAAACAAAAACAGTGGTAGGTTAAT
CTTGACGCTGCTAGTGAATCTTTGTCCGGCAATCCTTAGGTAAAGAGTGACACAAGCGAGATTTGTTTTGTCCACCATCCAATTA

30,855

PARK7

PARK7-201

GTCCGGCAATCCTTAGGTAA

Sanger Sequencing Primer

GTGTT CAGAAGTCGCTGTCCTTACTACTTTTTGCGGAAGTATGGAAGTCACAACCTACACAGAGATTTCTCAGCCTACAAATTGTGT
CACAAGTCTTCAGCGACAGGAATGATGAAAAACGCCTTCATACCTTCAGTGTTGATGTGTCTCTAAAGAGTCGGATGTTTAAACACA

30,940

PARK7

PARK7-201

CTATACATTTCTAAGCCTTGTTTTGCAGAATAAACAGGGCATTAGCAAACCTACTGATTGTTTCTTGTTTTGTCTCTCATTTCTTT
GATATGTAAAGATTCGGAACAAACGTCTTATTTGTCCCGTAAATCGTTTGATGACTAACAAAGAACAAAACAGAGAGTAAAGAAA

31,025

PARK7

PARK7-201

TGTGAAATTAATTCGGTATCACCTTCATTTGCAGCTCTTAACTGTCCATATGGCACTGAAATAAAAGAACAGTGACCACATTTT
ACACTTTAATTTAAGGCATAGTGGAAGTAAACGTTCGAGAATTGACAGGTATACCGTGACTTTATTTTCTTGTCACTGGTGTAATA

31,110

PARK7

PARK7-201

ACACAGCAAGGAGGAAAGGCATACAAACAGAAATTTAAGAGGCTTGTGATTTTCTCTGCTTATTAGCTGTGTGTTTTTAATGTGCT
TGTGTCGTTCTCCTTTCCGTATGTTTGTCTTAAATTCCTCCGAACACTAAAAGAGACGAATAATCGACACACAAAAATTACACGA

31,195

PARK7

PARK7-201

CTCCGAACACTAAAAGAGACGAATA

PCR Reverse

ATTAATAAATACCAATGAGG
TAATTTTTTATGGTTACTCC

3'

31,215

5'

PARK7

PARK7-201

Feature	Location	Size	Type
✓ PARK7	1 .. 31,215	31,215 bp	gene
/note	= gene ENSG00000116288 Protein coding		
PARK7-208	1 .. 30,762	30,762 bp	prim_transcript
/note	= primary transcript ENST00000493373		
PARK7-205	7373 .. 16,758	9386 bp	prim_transcript
/note	= primary transcript ENST00000460192 Retained intron		
PARK7-209	7402 .. 31,215	23,814 bp	prim_transcript
/note	= primary transcript ENST00000493678		
PARK7-204	7411 .. 30,991	23,581 bp	prim_transcript
/note	= primary transcript ENST00000377493		
✓ PARK7-201	7421 .. 31,215	23,795 bp	prim_transcript
/note	= primary transcript ENST00000338639		
PARK7-206	7458 .. 17,231	9774 bp	prim_transcript
/note	= primary transcript ENST00000465354 Retained intron		
PARK7-203	7604 .. 30,960	23,357 bp	prim_transcript
/note	= primary transcript ENST00000377491		
PARK7-202	7679 .. 30,821	23,143 bp	prim_transcript
/note	= primary transcript ENST00000377488		
PARK7-210	8477 .. 17,667	9191 bp	prim_transcript
/note	= primary transcript ENST00000497113 protein_coding_CDS_not_defined		
✓ PARK7-201	8496 .. 30,764	22,269 bp	CDS
▶ 6 segments = 570 bp			
/note	= coding sequence ENSP00000340278		
/translation	= MASKRALVILAKGAEEMETVIPVDVMRRAG,,IKVTVAGLAGKDPVQCSRDVVICPDASLEDAKKE,,GPYDVVVLPGGNLGAQNLSE,,SAAV KEILKEQENRKGLIAAICA,,GPTALLAHEIGFGSKVTTHPLAKDKMMNG,,GHYTYSENRVKDGILTSRPGTSTFEFALAIVEALNGKEVAA QVQKARLVLKD* 199 amino acids = 19.9 kDa		
PARK7-202	8496 .. 30,764	22,269 bp	CDS
▶ 6 segments = 570 bp			
/note	= coding sequence ENSP00000366708		
/translation	= MASKRALVILAKGAEEMETVIPVDVMRRAG,,IKVTVAGLAGKDPVQCSRDVVICPDASLEDAKKE,,GPYDVVVLPGGNLGAQNLSE,,SAAV KEILKEQENRKGLIAAICA,,GPTALLAHEIGFGSKVTTHPLAKDKMMNG,,GHYTYSENRVKDGILTSRPGTSTFEFALAIVEALNGKEVAA QVQKARLVLKD* 199 amino acids = 19.9 kDa		
PARK7-203	8496 .. 30,764	22,269 bp	CDS
▶ 6 segments = 570 bp			
/note	= coding sequence ENSP00000366711		
/translation	= MASKRALVILAKGAEEMETVIPVDVMRRAG,,IKVTVAGLAGKDPVQCSRDVVICPDASLEDAKKE,,SAAVKEILKEQENRKGLIAAICA,,GP TALLAHEIGFGSKVTTHPLAKDKMMNG,,GHYTYSENRVKDGILTSRPGTSTFEFALAIVEALNGKEVAAQVKAPLVLKD* 169 amino acids = 17.9 kDa		
PARK7-204	8496 .. 30,764	22,269 bp	CDS
▶ 5 segments = 510 bp			
/note	= coding sequence ENSP00000466242		
/translation	= MASKRALVILAKGAEEMETVIPVDVMRRAG,,IKVTVAGLAGKDPVQCSRDVVICPDASLEDAKKE,,SAAVKEILKEQENRKGLIAAICA,,GP TALLAHEIGFGSKVTTHPLAKDKMMNG,,GHYTYSENRVKDGILTSRPGTSTFEFALAIVEALNGKEVAAQVKAPLVLKD* 169 amino acids = 17.9 kDa		
PARK7-209	8496 .. 30,764	22,269 bp	CDS
▶ 6 segments = 570 bp			
/note	= coding sequence ENSP00000418770		
/translation	= MASKRALVILAKGAEEMETVIPVDVMRRAG,,IKVTVAGLAGKDPVQCSRDVVICPDASLEDAKKE,,GPYDVVVLPGGNLGAQNLSE,,SAAV KEILKEQENRKGLIAAICA,,GPTALLAHEIGFGSKVTTHPLAKDKMMNG,,GHYTYSENRVKDGILTSRPGTSTFEFALAIVEALNGKEVAA QVQKARLVLKD* 199 amino acids = 19.9 kDa		

Feature	Location	Size	Color	Symbol	Type
PARK7-208	8496 .. 30,762	22,267 bp	■	→	CDS
▶ 6 segments = 568 bp					
/note	= coding sequence ENSP00000465404				
/translation	= MASKRALVILAKGAEEMETVIPVDVMRRAG,,IKVTVAGLAGKDPVQCSRDVVICPDASLEDAKKE,,GPYDVVVLPGGNLGAQNLSE,,SAAVKEILKEQENRKGLIAAICA,,GPTALLAHEIGFGSKVTTHPLAKDKMMNG,,GHYTYSENRV EKDGLILTSRGPPTSFEFALAIVEALNGKEVAAQVKA PLV LKD*				
	199 amino acids = 19.9 kDa				
PARK7-207	11,061 .. 30,992	19,932 bp	■	→	prim_transcript
/note	= primary transcript ENST00000469225				
PARK7-207	11,061 .. 30,764	19,704 bp	■	→	CDS
▶ 5 segments = 483 bp					
/note	= coding sequence ENSP00000466756				
/translation	= GKDPVQCSRDVVICPDASLEDAKKE,,GPYDVVVLPGGNLGAQNLSE,,SAAVKEILKEQENRKGLIAAICA,,GPTALLAHEIGFGSKVTTHPLAKDKMMNG,,GCHLFCFYFAGHYTYSENRV EKDGLILTSRGPPTSFEFALAIVEALNGKEVAAQVKA PLV LKD*				
	160 amino acids = 17.0 kDa				
Y_RNA	28,591 .. 28,693	103 bp	■	↔	gene
/note	= gene ENSG00000200344 misc_RNA				
Y_RNA.140-201	28,591 .. 28,693	103 bp	■	↔	prim_transcript
/note	= primary transcript ENST00000363474 misc_RNA				
✓ Donor Template WT -> SNV	30,614 .. 30,713	100 bp	■	⊢	misc_feature
✓ PAM	30,673 .. 30,675	3 bp	■	⊢	misc_feature
✓ Protospacer Sequence	30,676 .. 30,695	20 bp	■	⊢	misc_feature
✓ SNV	30,691 .. 30,691	1 bp	■	⊢	misc_feature
/note	= WT = T SNV = C				

Primer	Length	Binding Sites	Tm	Date Added
✓ PCR Forward	25-mer	30,139 .. 30,163	64°C	Mar 6, 2023
/sequence	= ATGCATACCCGCCTCCATTACGTTG			
	52% GC / 7553.0 Da			
✓ Donor Template WT -> SNV	100-mer	30,614 .. 30,713	78°C	Mar 6, 2023
/sequence	= CTACTCTGAGAATCGTGTGGAAAAAGACGGCCTGATTCTTACAAGCCGGGGGCCTGGGACCAGCTTCGAGTTTGCGCCTGCAATTGT			
	58% GC / 31092.1 Da			
✓ gRNA Protospacer	20-mer	30,676 .. 30,695	62°C	Mar 6, 2023
/sequence	= TGCAAGCGCAAACCTCGAAGC			
	55% GC / 6120.0 Da			
✓ Sanger Sequencing Primer	20-mer	30,796 .. 30,815	57°C	Mar 6, 2023
/sequence	= AATGGATTCCTAACGGCCTG			
	50% GC / 6117.0 Da			
✓ PCR Reverse	25-mer	31,148 .. 31,172	58°C	Mar 6, 2023
/sequence	= ATAAGCAGAGAAAATCACAAAGCCTC			
	40% GC / 7661.1 Da			