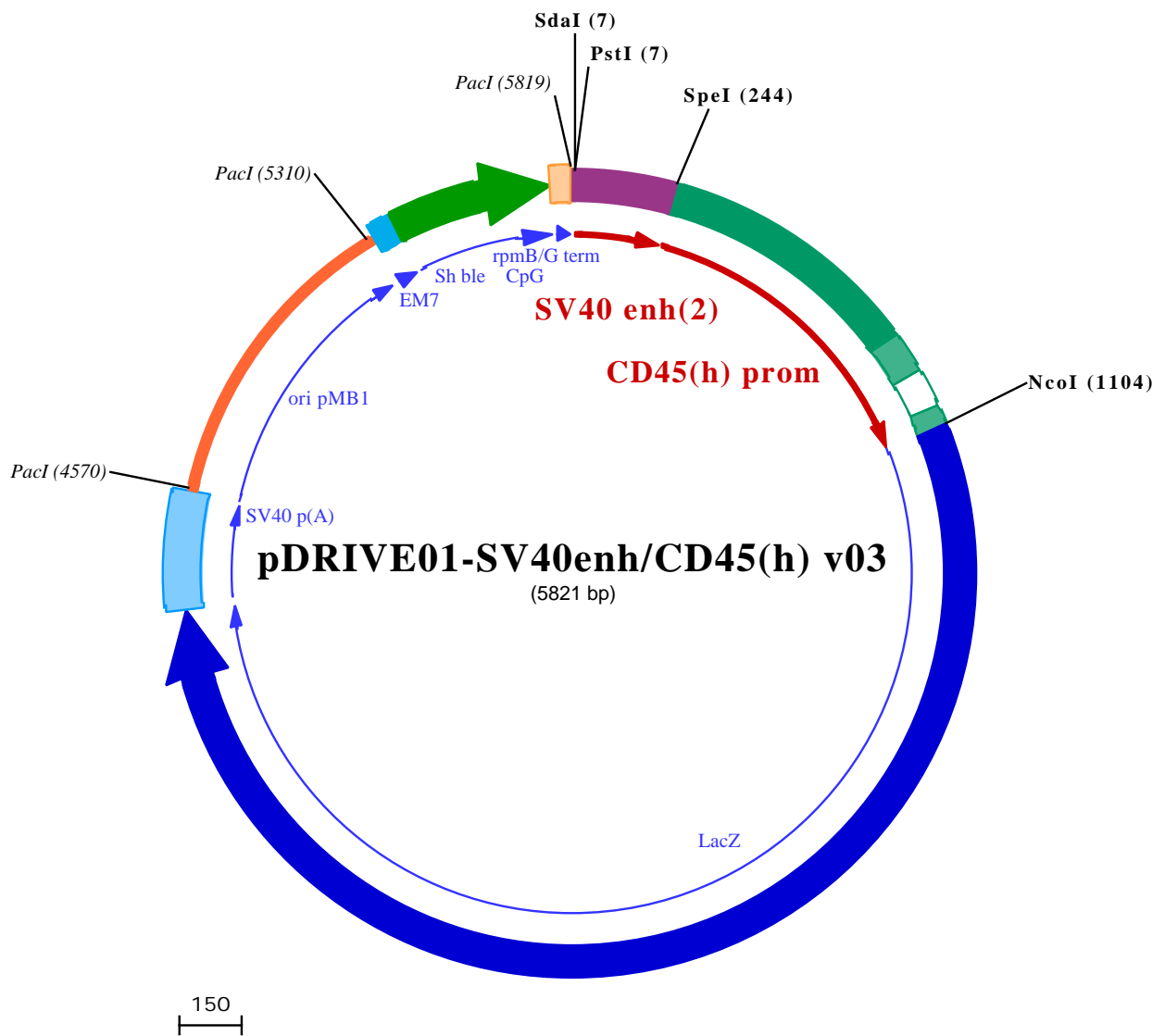


PstI (7) **SpeI (14)**
1 CCTGCAGGGCCACTAGTGCCAAGAACATCTTAAGTCACAGAAAATTAGTTTTTGGAAAGCAGGGTTTGCTGTAAGTATAGTAGAAATGACATTCTGATT
101 CCACTCCTAGCTTCACAAGGATATCTGTGAAAGATTTGGGGCAAACTGTTAAGCTGCTGAAAGTGCTTTTGCATAAGAAATGGGTTTACTGCTAAAA
201 CTGTCATATTGCTGAGTTTTGAATGCCCTAATGGTAAATGATACTGGGTGCCAAAAATAACCAGATTAGTAGTTTTTTCATTCAATTGGCCGTCTCAGT
301 AAGTCAAATATTGATACTTTCTACTAAGTCATCTTGCCAACACCCATTTTGTATACTTATGCTGAATCTGTTTGTCACTCTTAAGTAAGAAAATTATT
401 GATTATTTTGTGGGGATTAATTTAAAAAAAATGGTAATGGATACTGTAAAGGAGCATTATTTGGATGGTTTAAAAACATCTTCCTTGATGGGAAAATCT
501 TTTAAAAGGCTTTCTAAGTGTGTAATTACTTGAATTAAGGAAGTGAATGCCATTCTACTGACTTAGAACAACTTTTGTACTTCTGCAAGAGGAC
601 CCTTACAGTATTTTTGGAGAAGTAGTAAAACCGAATCTGACATCATCACCTAGCAGTTCATGCAGCTAGCAAGTGGTTTGTCTTAGGGTAACAGAGGA
701 GAAATTTGCTCTGCTGATAAGACAACAGTGGAGAgatgcatattattttacttttacatTTTTgattcgTTTTtacagagaaaacttctacag

NcoI (874)
801 agataacaattatTTTgcttttcagAAGGACGCATGCTGTTTCTTAGGGACACGGCTGACTTCCAGATATGACCATGGGGGTTCTCATCATCATCA
901 TCATGGTATGGCTAGCATGACTGGTGGACAGCAAATGGGTCGGGATCTGTACGACGATGACGATAAGGTACCTAAGGATCAGCTTGGAGTTGATCCCCTC
99 9> sHisGlyMetAlaSerMetThrGlyGlyGlnGlnMetGlyArgAspLeuTyrAspAspAspAspLysValProLysAspGlnLeuGlyValAspProVal
1001 GTTTTACACGTCGTGACTGGGAAAACCTGGCGTTACCAACTTAATCGCCTTGCAGCACATCCCCTTTCCGCGAGCTGGCGTAATAGCGAAGAGGCC
109 43> ValLeuGlnArgArgAspTrpGluAsnProGlyValThrGlnLeuAsnArgLeuAlaAlaHisProProPheAlaSerTrpArgAsnSerGluGluAlaA
1101 GCACCGATCGCCTTCCAACAGTTGCGCAGCCTGAATGGCGAATGGCGCTTTGCTGGTTCCGGCACCAGAAGCGGTGCCGAAAGCTGGCTGGAGTG
119 76> rgThrAspArgProSerGlnGlnLeuArgSerGluAsnGlyTrpArgPheAlaTrpPheAlaProGluAlaValAspGluSerTrpLeuGluCy
1201 CGATCTTCTGAGGCGGATACTGTCGTCGTCGCCCTCAAACCTGGCAGATGCACGGTTACGATGCGCCCATCTACACCAACGTAACCTATCCCATTACGGTC
129 109> sAspLeuProGluAlaAspThrValValValProSerAsnTrpGlnMetHisGlyTyrAspAlaProl IeTyrThrAsnValThrTyrProl IeThrVal
1301 AATCCGCGCTTTGTTCCACGGAGAATCCGACGGGTTGTACTCGCTCACATTAATGTTGATGAAAGCTGGCTACAGGAAGGCCAGACGCGAATTATTT
139 143> AsnProProPheValProThrGluAsnProThrGlyCysTyrSerLeuThrPheAsnValAspGluSerTrpLeuGlnGluGlyGlnThrArgI IeI IeP
1401 TTGATGGCGTTAACTCGCGCTTTCATCTGTGGTGAACGGCGCTGGGTTCGTTACGGCCAGGACAGTCGTTTGGCGCTGTAATGACCTGACGCGATT
149 176> heAspGlyValAsnSerAlaPheHisLeuTrpCysAsnGlyArgTrpValGlyTyrGlyGlnAspSerArgLeuProSerGluPheAspLeuSerAlaPh
1501 TTTACGGCGCGGAGAAAACCGCTCGCGGTGATGGTGTGCGTTGGAGTGACGGCAGTTATCTGGAAGATCAGGATATGTGGCGGATGAGCGGCATTTC
159 209> eLeuArgAlaGlyGluAsnArgLeuAlaValMetValLeuArgTrpSerAspGlySerTyrLeuGluAspGlnAspMetTrpArgMetSerGlyI IePhe
1601 CGTGACGTCCTGCTGCATAAACCGACTACACAACTCAGCGATTTCATGTTGCCACTCGCTTAATGATGATTTACGCCGCGCTGTACTGGAGGCTG
169 243> ArgAspValSerLeuHisLysProThrThrGlnI IeSerAspPheHisValAlaThrArgPheAsnAspAspAlaValLeuGluAlaG
1701 AAGTTCAGATGTGCGCGAGTTGCGTGACTACCTACGGGTAACAGTTTCTTTATGGCAGGGTAAACCGCAGGTCGCCAGCGGCACCGCGCTTTCCGGCG
179 276> luValGlnMetCysGlyGluLeuArgAspTyrLeuArgValThrValSerLeuTrpGlnGlyGluThrGlnValAlaSerGlyThrAlaProPheGlyG
1801 TGAATTTATCGATGAGCGTGGTGGTTATGCCGATCGCGTCACACTACGCTGAACGTCGAAAACCCGAAACTGTGGAGCGCGGAAATCCCGAATCTCTAT
189 309> yGluI IeI IeAspGluArgGlyGlyTyrAlaAspArgValThrLeuArgLeuAsnValGluAsnProLysLeuTrpSerAlaGluI IeProAsnLeuTyr
1901 CGTGGCGTGGTTGAACGTCACACCGCGCAGCGCTGATTGAAGCAGAAGCCTGGCATGTCGTTTCCGCGAGGTGCGGATGAAAATGGTCTGCTGC
199 343> ArgAlaValValGluLeuHisThrAlaAspGlyThrLeuI IeGluAlaGluAlaCysAspValGlyPheArgGluValArgI IeGluAsnGlyLeuLeuL
2001 TGCTGAACGGCAAGCCGTTGCTGATTCGAGGCGTTAACCGTCACGAGCATCATCCTCTGCATGGTCAGGTCATGGATGAGCAGACGATGGTGCAGGATAT
209 376> euLeuAsnGlyLysProLeuLeuI IeArgGlyValAsnArgHisGluHisHisProLeuHisGlyGlnValMetAspGluGlnThrMetValGlnAspI I
2101 CCTGCTGATGAAGCAGAAACCTTTAACGCGCTGGCTGTTCCGATTATCCGAACCATCCGCTGGGTACACGCTGTGCGACCGCTACCGCTGTATGTG
219 409> eLeuLeuMetLysLysGlnAsnAsnPheAsnAlaValArgCysSerHisTyrProAsnHisProLeuTrpTyrThrLeuCysAspArgValLeuGluThrVal
2201 GTGGATGAAGCAATATTGAAACCCACGGCATGGTGCAATGAATCGTCTGACCGATGATCCGCGTGGCTACCGCGGATGAGCGAACCGGTAACCGGAA
229 443> ValAspGluAlaAsnI IeGluThrHisGlyMetValProMetAsnArgLeuThrAspAspProArgTrpLeuProAlaMetSerGluArgValThrArgM
2301 TGGTGCAGCGCATCGTAATCACCCGAGTGTGATCATCTGGTCGCTGGGAAATGAATCAGGCCACGGCGCTAATCACGACGGCTGTATCGCTGGATCAA
239 476> etValGlnArgAspArgAsnHisProSerVal I IeI IeTrpSerLeuGlyAlaAsnGluSerGlyHisGlyAlaAsnHisAspAlaLeuTyrArgTrpI IeLy
2401 ATCTGTGCATCTCCCGCGGTGTCAGTATGAAGCGCGGAGCCGACACCGCCAGGATATTATTTGCGCGATGACCGCGCGTGGATGAAGAC
249 509> sSerValAspProSerArgProValGlnTyrGluGlyGlyAlaAspThrThrAlaThrAspI IeI IeCysProMetTyrAlaArgValAspGluAsp
2501 CAGCCCTCCCGCTGTGCGGAAATGGTCCATCAAAAATGGCTTTCCGTACCTGGAGAGACGGCCGCTGATCCTTTGCGAATACGCCACCGCATGG
259 543> GlnProPheProAlaValProLysTrpSerI IeLysLysTrpLeuSerLeuProGlyGluThrArgProLeuI IeLeuCysGluTyrAlaHisAlaMetG
2601 GTAACAGTCTGGCGGTTTCGCTAAATACTGGCAGCGTTTCGTCAGTATCCCGGTTACAGGGCGGCTTCGCTGGGACTGGGTTGATCAGTCCGCTGAT
269 576> lyAsnSerLeuGlyGlyPheAlaLysTyrTrpGlnAlaPheArgGlnTyrProAlaLeuGlnGlyGlyPheValTrpAspTrpValAspGlnSerLeuI I
2701 TAAATATGATGAAAACGGCAACCCGTTGGCTTACGGCGGTGATTTTGGCGATACGCCAAGCATCGCCAGTTCTGTATGAACGGTCTGGTCTTTGCC
279 609> eLysTyrAspGluAsnGlyAsnProTrpSerAlaTyrGlyGlyAspPheGlyAspThrProAsnAspArgGlnPheCysMetAsnGlyLeuValPheAla
2801 GACCGCACGCGCATCCAGCGCTGACGGAAGCAAAACACCAGCAGCAGTTTTTCCAGTTCGCTTTATCCGGGCAAACCATCGAAGTGACCAGCGAATACC
289 643> AspArgThrProAlaThrGluAlaThrGluAlaLysHisGlnGlnPheGlnPheAlaTrpPheAlaTrpPheAlaTrpPheAlaTrpPheAlaTrpL
2901 TGTTCGCTATAGCGATAACGAGCTCTGCACTGGATGGTGGCGCTGGATGTTAAGCCGCTGGCAAGCGGTGAAGTCCCTGGATGTCGCTCCACAAG
299 676> euPheArgHisSerAspAsnGluLeuLeuHisTrpMetValAlaLeuAspGlyLysProLeuAlaSerGlyGluValProLeuAspValAlaProGlnG
3001 TAAACAGTTGATTGAACTGCCTGAACCTACCGACCGGAGAGCGCGGCAACTCTGGCTCACAGTACCGGTAGTGCACCGAACCGGACCGCATGGTCA
309 709> yLysGlnLeuI IeGluLeuProGluLeuProGlnProGluSerAlaGlyGlnLeuTrpLeuThrValArgValValGlnProAsnAlaThrAlaTrpSer
3101 GAAGCCGGGCACATCAGCGCTGGCAGCAGTGGCGTTCGGGAAAACCTCAGTGTGACGCTCCCGCGCGTCCCACGCCATCCCGCATCTGACCACCA
319 743> GluAlaGlyHisI IeSerAlaTrpGlnGlnTrpArgLeuAlaGluAsnLeuSerValThrLeuProAlaAlaSerHisAlaI IeProHisLeuThrThS
3201 GCGAAATGGATTTTTCATCGAGCTGGGTAATAAGCGTTGGCAATTTAACCGCCAGTCAGGCTTTCTTTACAGATGTGGATTGGCGATAAAAAACAACT
329 776> erGluMetAspPheCysI IeGluLeuGlyAsnLysArgTrpGlnPheAsnArgGlnSerGlyPheLeuSerGlnMetTrpI IeGlyAspLysLysGlnLe
3301 GCTGACGCGCTGCGGATCAGTTCACCCGTGACCGCTGGATAACGACATTGGCGTAAAGTGAAGCGACCGCATTGACCCTAACCGCTGGTCCGAAACCG
339 809> uLeuThrProLeuArgAspGlnAlaTrpAlaProLysAsnAspI IeGlyValSerGluAlaThrArgI IeAspProGluAlaTrpValGluArg
3401 TGAAGCGCGCGGCCATTACAGGCCGAAGCAGCTTGTTCGACTGCACCGCAGATACACTTGTGCTGATGCGGTGCTGATTACGACCGCTCAGCGTGGC
349 843> TrpLysAlaAlaGlyHisTyrGlnAlaGluAlaAlaLeuLeuGlnCysThrAlaAspThrLeuAlaAspAlaValLeuI IeThrThrAlaHisAlaTrpG
3501 AGCATCAGGGAAAACCTTATTTATCAGCGGAAAACCTACCGGATTGATGGTAGTGTCAAATGGCGATTACCGTGTGTTGAAGTGGCGAGCGATAC
876> InHisGlnGlyLysThrLeuPheI IeSerArgLysThrTyrArgI IeAspGlySerGlyGlnMetAlaI IeThrValAspValGluValAlaSerAspTh

3601 ACCGCATCCGGCGGGATTGGCCTGAACTGCCAGCTGGCGCAGGTAGCAGAGCGGGTAACTGGCTCGGATTAGGGCCGAAGAAAATATCCCGACCGC
909▶ rProHisProAlaArgI leGlyLeuAsnCysGlnLeuAlaGlnValAlaGluArgValAsnTrpLeuGlyLeuGlyProGlnGluAsnTyrProAspArg
3701 CTTACTGCCGCTGTTTTGACCGCTGGGATCTGCCATTGTCAGACATGTATACCCCGTACGCTTCCCGAGCGAAAACGGTCTGGCTGGGGACGGCG
943▶ LeuThrAlaAlaCysPheAspArgTrpAspLeuProLeuSerAspMetTyrThrProTyrValPheProSerGluAsnGlyLeuArgCysGlyThrArgG
3801 AATTGAATTATGGCCCACACAGTGGCGCGGCGACTTCCAGTTCAACATCAGCCGCTACAGTCAACAGCAACTGATGGAAACCAGCCATCGCCATCTGCT
976▶ luLeuAsnTyrGlyProHisGlnTrpArgGlyAspPheGlnPheAsnI leSerArgTyrSerGlnGlnGlnLeuMetGluThrSerHisArgHisLeuLe
3901 GCACGGGAAGAAGGCACATGGCTGAATATCGACGGTTCCATATGGGGATTGGTGGCGACGACTCCTGGAGCCCGTCAAGTATCGGGGAAATTACAGCTG
1009▶ uHisAlaGluGluGlyThrTrpLeuAsnI leAspGlyPheHisMetGlyI leGlyGlyAspAspSerTrpSerProSerValSerAlaGluLeuGlnLeu
4001 AGCGCCGTCGCTACCATTACCAGTTGGTCTGGTGTCAAAAATAATAATCTAGTCGAGAATTCGCTAGCTCGACATGATAAGATAACATTGATGAGTTGG
1043▶ SerAlaGlyArgTyrHisTyrGlnLeuValTrpCysGlnLys•••
4101 ACAACCACAACCTAGAATGCAGTGAAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTG
TAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATGCATTCAATTTATGTTTCAGGTTTCAGGGGGAGGTGTGGGAGGTTTTTTTAAAGCAAGTA
PacI (4340)
4301 AAACCTCTACAAATGTGGTAGATCCATTTAAATGTTAAATTAAGTCCATGACCAAAAATCCCTTAACGTGAGTTTTTCGTTTCCACTGAGCGTCAGACCCCG
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PacI (5080)
5001 GCCTATGGAAAAACGCCAGCAACGCGGCCCTTTTACGGTTTCTGGCCTTTTGTGGCCTTTTGTCTACATGTTCTTAATTAATTTTTCAAAAGTAGTTG
ACAATTAATCATCGGCATAGTATATCGGCATAGTATAATACGACTCACTATAGGAGGGCCATCATGGCCAAGTTGACCAGTGTGTCCAGTGTCTACAG
1▶ MetAlaLysLeuThrSerAlaValProValLeuThrA
5201 CCAGGGATGTGGCTGGAGCTTTGAGTTCTGGACTGACAGTTGGGGTCTCCAGAGATTTTGTGGAGGATGACTTTGACGGTGGTTCAGAGATGATGT
13▶ laArgAspValAlaGlyAlaValGluPheTrpThrAspArgLeuGlyPheSerArgAspPheValGluAspAspPheAlaGlyValValArgAspAspVa
5301 CACCCTGTTTCTCAGCAGTCCAGGACCAGGTGGTGCCTGACAACACCCTGGCTGGGGTGTGGGTGAGAGGACTGGATGAGCTGTATGCTGAGTGGAGT
46▶ lThrLeuPheI leSerAlaValGlnAspGlnValValProAspAsnThrLeuAlaTrpValTrpValArgGlyLeuAspGluLeuTyrAlaGluTrpSer
5401 GAGGTGCTCCACCAACTTCAGGGATGCCAGTGGCCCTGCCATGACAGAGATTGGAGAGCAGCCCTGGGGGAGAGAGTTTCCCTGAGAGACCCAGCAG
80▶ GluValValSerThrAsnPheArgAspAlaSerGlyProAlaMetThrGluI leGlyGluGlnProTrpGlyArgGluPheAlaLeuArgAspProAlaG
PacI (5589)
5501 GCAACTGTGTGCACTTTGTGGCAGAGGAGCAGGACTGAGGATAAGAATTGTAACAAAAAACCCCGCCCGGGGGTTTTTTTGTAAATTA
113▶ lyAsnCysValHisPheValAlaGluGluGlnAsp•••



PstI (7)
SdaI (7)

1 CCTGCAGGGCCTGAAATAACCTCTGAAAGAGGAACCTGGTTAGGTACCTTCTGAGGGCGAAAGAACCAGCTGTGGAATGTGTCTCAGTTAGGGTGTGGAA
101 AGTCCCCAGGCTCCCCAGCAGGCAGAAGTATGCAAAGCATGCATCTCAATTAGTCTCAGCAACCAGGTGTGAAAGTCCCCAGGCTCCCCAGCAGGCAGAAG
SpeI (244)
201 TATGCAAAGCATGCATCTCAATTAGTCTCAGCAACCATAGTCCCACTAGTGCCAAGAACATCTTAAGTACAGAAACATTAGTTTTTGAAGCAGGGTTTGC
301 TGTAACATAGTAGAAATGACATTCTGATTCCACTCCTAGCTTCACAAGGATATCTGTGAAAGATTTGGGGCAAACTGTTAAGCTGTCTGAAAGTGCTT
401 TTGCATAAGAAATGGGTTTTACTGCTAAAACGTGCATATTGCTGAGTTTTGAATGCCCTAATGGTAAATGATACTGGGTTGCCAAAAATAACCAGATTAG
501 TAGTTTTTTTCATTTCATTGGCCGTCTCAGTAAGTCAAATATTGATACTTTCTACTAAGTTCATCTTGCACACCCATTGTTTGTATACTTATGCTGAATCT
601 GTTGTGCATCTCTTAAGTAAGAAAATTATTGATTATTTTGTGGGGATTAAATTTAAAAAAAATGGTAATGGATACTGTAAGGAGCATTATTTGGATGGT
701 TTA AAAACATCTCCTGTGATGGGAAAATCTTTTAAAAGGCTTTCTAAGTGGTGAATTAAGGAAAGTGAATGCCATTCTACTGACTTAGA
801 ACAACTTTTTTGACTTCCTGCAAAGAGGACCCTTACAGTATTTTTGGAGAAGTTAGTAAAACCGAATCTGCATCATCACCTAGCAGTTCATGCAGCTAG
901 CAAGTGGTTTGTCTTAGGGTAACAGAGGAGGAAATTTGCTCCTGCTGATAAGACAACAGTGGAGAgatgcattattttacttttacattttg
1001 attcgtttttacagagaaaaacttctacagagataacaattattttgccttttcagAAGGACCGCATGCTGTTTCTTAGGGACACGGCTGACTTCCAGATAT

NcoI (1104)

1101 GACCATGGGGGTTCTCATCATCATCATCATGGTATGGCTAGCATGACTGGTGGACAGCAAATGGGTCGGGATCTGTACGACGATGACGATAAGGTA
MetGlyGlySerHisHisHisHisHisHisGlyMetAlaSerMetThrGlyGlyGlnGlnMetGlyArgAspLeuTyrAspAspAspAspLysVal
1201 CCTAAGGATCAGCTTGGAGTTGATCCCGTCTTTTACAACGTCGACTGGGAAAACCTGGCGTTACCCAACCTTAATCGCCTTGACGACATCCCCCT
33 ProLysAspGlnLeuGlyValAspProValValLeuGlnArgArgAspTrpGluAsnProGlyValThrGlnLeuAsnArgLeuAlaAlaHisProProP
1301 TCGCCAGCTGGCGTAATAGCGAAGAGGCCCGCACCGATCGCCCTTCCCAACAGTTGGCGAGCCTGAATGGCGAATGGCGCTTTGCTGGTTTCCGGCACC
66 heAlaSerTrpArgAsnSerGluGluAlaArgThrAspArgProSerGlnGlnLeuArgSerLeuAsnGlyGluTrpArgPheAlaTrpPheProAlaPr
1401 AGAAGCGGTGCCGAAAGCTGGCTGGAGTGGATCTTCTGAGGCCGATACTGCTGCTGCCCTCAAACCTGGCAGATGCACGGTTACGATCGCCCATC
99 oGluAlaValProGluSerTrpLeuGluCysAspLeuProGluAlaAspThrValValValProSerAsnTrpGlnMetHisGlyTyrAspAlaProI le
1501 TACACCAAGTAACCTATCCCATACGGTCAATCCGCGTGTTCCTCCACGAGAATCCGACGGGTTGTTACTCGCTCACATTAATGTTGATGAAAGCT
133 TyrThrAsnValThrTyrProI leThrValAsnProProPheValProThrGluAsnProThrGlyCysTyrSerLeuThrPheAsnValAspGluSerT
1601 GGCTACAGGAAGGCCAGACGGAATTATTTTTGATGGCGTAACTCGGCGTTTCATCTGTGGTGAACCGGGCGTGGTTCGGTACGGCCAGGACAGCTG
166 rpLeuGlnGluGlyGlnThrArgI leI lePheAspGlyValAsnSerAlaPheHisLeuTrpCysAsnGlyArgTrpValGlyTyrGlyGlnAspSerAr
1701 TTTGCCGTCTGAATTTGACCTGAGCGCATTTTACGCGCCGAGAAAACCGCTCGCGGTGATGGTGTGCTGCGTTGGAGTGACGGCAGTTATCTGGAAGAT
199 gLeuProSerGluPheAspLeuSerAlaPheLeuArgAlaGlyGluAsnArgLeuAlaValMetValLeuArgTrpSerAspGlySerTrpLeuGluAsp
1801 CAGGATATGTGGCGGATGAGCGGCATTTTCCGTGACGTCTCGTTGCTGCATAAACCGACTACACAAATCAGCGATTTCATGTTGCCACTCGCTTAAATG
233 GlnAspMetTrpArgMetSerGlyI lePheArgAspValSerLeuLeuHisLysProThrThrGlnI leSerAspPheHisValAlaThrArgPheAsnA
1901 ATGATTTTACGCCGCTGACTGGAGGCTGAAGTTTCCAGATGTCGGCGAGTTGCGTACTACCTACGGGTAACAGTTTCTTTATGGCAGGGTAAACCGCA
266 spAspPheSerArgAlaValLeuGluAlaGluValGlnMetCysGlyGluLeuArgAspTyrLeuArgValThrValSerLeuTrpGlnGlyGluThrG
2001 GGTCGCCAGCGGCACCGCCTTTCGGCGGTGAATTTACGATGAGCGTGGTGGTTATGCCGATCGCGTACACTCGCTGACACTGACCGTGAACCGGAAA
299 nValAlaSerGlyThrAlaProPheGlyGlyGluI leI leAspGluArgGlyGlyTyrAlaAspArgValThrLeuArgLeuAsnValGluAsnProLys
2101 CTGTGGAGCGCGAAATCCGAATCTCTATCGTGGTGGTGAAGTGCACACCGCCGACGGCAGCTGATTGAAGCAGAAGCTCGGATGTCGGTTTCC
333 LeuTrpSerAlaGluI leProAsnLeuTyrArgAlaValValGluLeuHisThrAlaAspGlyThrLeuI leGluAlaGluAlaCysAspValGlyPheA
2201 GCGAGGTGCGGATTTGAAATGGTCTGCTGCTGTAACGGCAAGCCGTTGCTGATTCGAGGGCGTTAACCGTACAGGACATCATCTCTGATGGTCAAGT
366 rgGluValArgI leGluAsnGlyLeu
2301 CATGGATGAGCAGCAGATGGTGCAGGATATCTGCTGATGAAGCAGAAACCTTAAACGCGTGGCTGTTCCGATTATCCGAACCATCCGCTGTGGTAC
399 IMetAspGluGlnThrMetValGlnAspI leLeuLeuMetLysGlnAsnAsnPheAsnAlaValArgCysSerHisTyrProAsnHisProLeuTrpTyr
2401 ACCTGTGCGACCGCTACGGCCTGTATGTTGGTGGATGAAGCAATATTGAAACCCACGGCATGGTGCAATGAATCGCTGACCGATGATCCGCGCTGGC
433 ThrLeuCysAspArgTyrGlyLeuTyrValValAspGluAlaAsnI leGluThrHisGlyMetValProMetAsnArgLeuThrAspProArgTrpL
2501 TACCGCGATGACGGAACCGCTAACCGAATGGTGCAGCGCATCGTAATCACCAGTGTGATCATCTGGTCCGTTGGGAATGAATCAGGCACGGCCG
466 euProAlaMetSerGluArgValThrArgMetValGlnArgAspArgAsnHisProSerValI leI leTrpSerLeuGlyAsnGluSerGlyHisGlyAl
2601 TAATCAGCAGCGCTGTATCGTGGATCAATCTGTCGATCTTCCCGCCGTTGACGATGAAGGGCGGGAGCCGACACCAGGCCACCGATATTATT
499 aAsnHisAspAlaLeuTyrArgTrpI leLysSerValAspProSerArgProValGlnTyrGluGlyGlyAlaAspThrThrAlaThrAspI leI le
2701 TGCCCGATGTACCGCGCTGGATGAAGACCAGCCCTTCCCGCTGTGCCAAATGGTCCATCAAAAATGGCTTTCGCTACCTGGAGAGACCGCCCG
533 CysProMetTyrAlaArgValAspGluAspGlnProPheProAlaValProLysTrpSerI leLysLysTrpLeuLeuLeuLeuLeuLeuLeuLeuLeuLeu
2801 TGATCCTTTGCGAATACGCCACGCGATGGGTAACAGTCTTGGCGGTTTCGTAATACTGGCAGGGCTTTCGTCAGTATCCCGGTTACAGGGCGGCTT
566 eul leLeuCysGluTyrAlaHisAlaMetGlyAsnSerLeuGlyGlyPheAlaLysTyrTrpGlnAlaPheArgGlnTyrProArgLeuGlnGlyGlyPh
2901 CGTCTGGGACTGGGTTGATCAGTCCGCTGATTAATATGATGAAAACCGCAACCCGTTGGTCCGCTACGGCGGTGATTTGGCGATACGCCAACGATCGC
599 eValTrpAspTrpValAspGlnSerLeuI leLysTyrAspGluAsnGlyAsnProTrpSerAlaTyrGlyGlyAspPheGlyAspThrProAsnAspArg
3001 CAGTTCGTATGAACGTTCTGTTTGGCCAGCCGCGCATCCAGCGCTGACCGAAGCAAAACACAGCAGCAGTTTTTCCAGTTCCTTACCTACCG
633 GlnPheCysMetAsnGlyLeuValPheAlaAspArgThrProHisProAlaLeuThrGluAlaLysHisGlnGlnGlnPhePheGlnPheArgLeuSerG
3101 GGCAACCATCGAAGTGACCGCAATACCTGTTCCGTCATAGCGATAACGAGCTCTCGACTGGATGGTGGCGCTGGATGGTAAGCCGCTGGCAAGCGG
666 lyGlnThrI leGluValThrSerGluTyrLeuPheArgHisSerAspAsnGluLeuLeuHisTrpMetValAlaLeuAspGlyLysProLeuAlaSerG
3201 TGAAGTGCTCTGGATGCTGCTCCACAAGGTAACAGTTGATTGAAGTGCCTGAAGTACCAGCGCGGAGAGCGCGGGCAACTCTGGCTCACAGTACCG
699 yValProMetTyrAlaAspValAlaProGlnGlyLysGlnLeuI leGluLeuProGluLeuLeuLeuLeuLeuLeuLeuLeuLeuLeuLeuLeuLeuLeuLeuLeu
3301 GTAGTGAACCGAACCGCAGCGATGGTCAGAAAGCCGGGCACATCAGCGCTGGCAGCAGTGGCGTCTGGCGGAAAACCTCAGTGTGACGCTCCCGCGC
733 ValValGlnProAsnAlaThrAlaTrpSerGluAlaGlyHisI leSerAlaTrpGlnGlnTrpArgLeuAlaGluAsnLeuSerValThrLeuProAlaA
3401 CGTCCACGCCATCCCGCATCTGACCACAGCGAAATGGATTTTGCATCGAGCTGGTAATAAGCGTTGGCAATTAACCGCCAGTCAAGCTTCTTTC
766 IaSerHisAlal leProHisLeuThrThrSerGluMetAspPheCysI leGluLeuGlyAsnLysArgTrpGlnPheAsnArgGlnSerGlyPheLeuSe

3501 ACAGATGTGGATTGGCGATAAAAAACAACTGCTGACGCCGCTGCGCGATCAGTTCACCCGTGACCCTGGATAACGACATTGGCGTAAGTGAAGCGACC
799▶ rGlnMetTrpI leGlyAspLysLysGlnLeuLeuThrProLeuArgAspGlnPheThrArgAlaProLeuAspAsnAspI leGlyValSerGluAlaThr
3601 CGCATTGACCTAACGCTGGTGAACGCTGGAAGCGCGGGCCATTACCAGGCCAAGCAGCGTTGTTGCAGTGCACGGCAGATACACTGCTGATG
833▶ ArgI leAspProAsnAlaTrpValGluArgTrpLysAlaAlaGlyHisTyrGlnAlaGluAlaAlaLeuLeuGlnCysThrAlaAspThrLeuAlaAspA
3701 CGGTGCTGATTACGACCGCTCACGCGTGGCAGCATCAGGGGAAAACCTTATTATCAGCCGAAAACCTACCGGATTGATGGTAGTGGTCAAATGGCGAT
866▶ laValLeuI leThrThrAlaHisAlaTrpGlnHisGlnGlyLysThrLeuPheI leSerArgLysThrTyrArgI leAspGlySerGlyGlnMetAlaI
3801 TACCCTGTGATGTTGAAGTGGCGAGCGATACCCGCATCCGGCGCGGATTGGCCTGAACTGCCAGCTGGCGCAGGTAGCAGAGCGGGTAAACTGGCTCGGA
899▶ eThrValAspValGluValAlaSerAspThrProHisProAlaArgI leGlyLeuAsnCysGlnLeuAlaGlnValAlaGluArgValAsnTrpLeuGly
3901 TTAGGGCCGCAAGAAAACCTATCCCGACCGCCTTACTGCCGCCTGTTTTGACCCTGGGATCTGCCATTGTCAGACATGTATACCCCGTACGCTTCCCGA
933▶ LeuGlyProGlnGluAsnTyrProAspArgLeuThrAlaAlaCysPheAspArgTrpAspLeuProLeuSerAspMetTyrThrProTyrValPheProS
4001 CCGAAAACGGTCTGCGCTGCGGGACGCGGAATTGAATTATGGCCACACCAGTGGCGCGGCGACTCCAGTTCAACATCAGCCGCTACAGTCAACAGCA
966▶ erGluAsnGlyLeuArgCysGlyThrArgGluLeuAsnTyrGlyProHisGlnTrpArgGlyAspPheGlnPheAsnI leSerArgTyrSerGlnGlnG
4101 ACTGATGAAAACAGCCATCGCCATCTGCTGCACGCGGAAGAAGGCACATGGCTGAATATCGACGGTTCCATATGGGGATTGGTGGCGCAGCACTCTGG
999▶ nLeuMetGluThrSerHisArgHisLeuLeuHisAlaGluGluGlyThrTrpLeuAsnI leAspGlyPheHisMetGlyI leGlyGlyAspAspSerTrp
4201 AGCCCGTCAGTATCGCGGGAATTACAGCTGAGCGCGGCTGCTACCATTACCAGTTGGTCTGGTGTCAAAAATAATAATCTAGTTCGAGAATTCGCTAGCT
1033▶ SerProSerValSerAlaGluLeuGlnLeuSerAlaGlyArgTyrHisTyrGlnLeuValTrpCysGlnLys•••

4301 CGACATGATAAGATACATTGATGAGTTTGGACAAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTT
4401 GTGAAATTTGTGATGCTATTGCTTTATTTGTAAACATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGCATTCAATTTATGTTTCAGGTTTCAGGG

PacI (4570)

4501 GGAGGTGTGGGAGGTTTTTTAAAGCAAGTAAACCTCTACAATGTGGTAGATCCATTTAAATGTTAATTAAGTACCATGACCAAAATCCCTTAACGTC
4601 AGTTTTCGTTCCACTGAGCGCTCAGACCCCGTAGAAAAGATCAAAGGATCTTCTTGGATCCTTTTTTCTGCGCGTAATCTGCTGCTTGCAAACAAAAA
4701 ACCACCGCTACCAGCGGTGTTTTGTTTGGCGGATCAAGAGCTACCAACTCTTTTTCCGAAGGTAAGTGGCTTCAGCAGAGCGCAGATACCAAATACTGTT
4801 CTTCTAGTGTAGCGTAGTTAGGCCACCACTTCAAGAACTCTGTAGCACCGCTACATACCTCGCTCTGCTAATCCTGTTACCAGTGGCTGCTGCCAGTG
4901 GCGATAAGTCTGTCTTACCGGTTGGACTCAAGACGATAGTTACCGGATAAGGCGCAGCGGTGGGCTGAACGGGGGTTCCGTGCACACAGCCAGCTT
5001 GGAGCGAACGACCTACACCGAACTGAGATACCTACAGCGTGAGCTATGAGAAAAGCGCACGCTTCCCGAAGGGAGAAAAGCGGACAGGTATCCGGTAAGC
5101 GGCAGGTCGGAACAGGAGAGCGCAGGAGGAGCTTCCAGGGGGAAACGCCTGGTATCTTTATAGTCTGCTGGGTTTCGCCACCTCTGACTTGAGCGTC
5201 GATTTTTGTGATGCTCGTCAGGGGGCGGAGCCTATGAAAAACGCCAGCAACGCGGCTTTTTACGGTTCCTGGCCTTTTGTGGCCTTTTGTCTCACAT

PacI (5310)

5301 GTTCTTAATTAATTTTCAAAAGTAGTTGACAATTAATCATCGGCATAGTATATCGGCATAGTATAATACGACTCACTATAAGGAGGGCCATCATGGCCA
5401 AGTTGACCACTGCTGTCCAGTGTCCAGCCAGGGATGTGGCTGGAGCTGTTGAGTCTGGACTGACAGGTTGGGGTCTCCAGAGATTTTGTGGAGGA
3▶ ysLeuThrSerAlaValProValLeuThrAlaArgAspValAlaGlyAlaValGluPheTrpThrAspArgLeuGlyPheSerArgAspPheValGluAs
5501 TGACTTTGACGGTGTGGTCAGAGATGATGTCACCCTGTCATCTCAGCAGTCCAGGACCAGGTGGTGCCTGACAACACCCCTGGCTGGGTGTTGGGTGAGA
36▶ pAspPheAlaGlyValValArgAspAspValThrLeuPheI leSerAlaValGlnAspGlnValValProAspAsnThrLeuAlaTrpValTrpValArg
5601 GGACTGGATGAGCTGTATGCTGAGTGGAGTGGGTTCCACCAACTTCAGGGATGCCAGTGGCCCTGCCATGACAGAGATTGGAGAGCAGCCCTGGG
70▶ GlyLeuAspGluLeuTyrAlaGluTrpSerGluValValSerThrAsnPheArgAspAlaSerGlyProAlaMetThrGluI leGlyGluGlnProTrpG
5701 GGAGAGAGTTTGCCTGAGAGACCCAGCAGGCAACTGTGTGCACTTTGTGGCAGAGGAGCAGGACTGAGGATAAGAATTGTAACAAAAACCCCGCCCGC
103▶ lyArgGluPheAlaLeuArgAspProAlaGlyAsnCysValHisPheValAlaGluGlnAsp•••

PacI (5819)

5801 CGGGGTTTTTTGTTAATTA