



150

3201 CACCAGCAGCAGTTTTTCCAGTTCGGTTTATCCGGGCAAACCATCGAAGTGACCAGCGAATACCTGTTCCGTCATAGCGATAACGAGCTCCTGCACTGGA
655▶ HisGlnGlnGlnPhePheGlnPheArgLeuSerGlyGlnThrI leGluValThrSerGluTyrLeuPheArgHisSerAspAsnGluLeuLeuHisTrpM
3301 TGGTGGCGCTGGATGGTAAGCCGCTGGCAAGCGGTGAAGTGCCTCTGGATGTCGCTCCACAAGGTAACAGTTGATTGAACTGCCTGAACTACCCGAGCC
688▶ etValAlaLeuAspGlyLysProLeuAlaSerGlyGluValProLeuAspValAlaProGlnGlyLysGlnLeuI leGluLeuProGluLeuProGlnPr
3401 GGAGAGCGCCGGGCAACTCTGGCTCACAGTACGCGTAGTGAACCGAACCGGACCGCATGGTCAGAAGCCGGGCACATCAGCGCTGGCAGCAGTGGCGT
721▶ oGluSerAlaGlyGlnLeuTrpLeuThrValArgValValGlnProAsnAlaThrAlaTrpSerGluAlaGlyHisI leSerAlaTrpGlnGlnTrpArg
3501 CTGGCGGAAAACTCAGTGTGACGCTCCCGCCCGCTCCACCGCATCCCGCATCTGACCACCAGCGAAATGGATTTTTGCATCGAGCTGGGTAATAAGC
755▶ LeuAlaGluAsnLeuSerValThrLeuProAlaAlaSerHisAlaI leProHisLeuThrThrSerGluMetAspPheCysI leGluLeuGlyAsnLysA
3601 TTGGCAATTTAACCGCAGTACAGGCTTCTTTCCACAGATGTGGATTGGCGATAAAAAACAACCTGCTGACGCGCTGCGCGATCAGTTACCCGTCACC
788▶ rgTrpGlnPheAsnArgGlnSerGlyPheLeuSerGlnMetTrpI leGlyAspLysLysGlnLeuLeuThrProLeuArgAspGlnPheThrArgAlaPr
3701 GCTGGATAACGACATTGGCGTAAGTGAAGCGACCCGATGACCCTAACGCCCTGGGTGGAACGCTGGAAGGCGCGGGCCATTACCAGGCCGAGCAGCG
821▶ oLeuAspAsnAspI leGlyValSerGluAlaThrArgI leAspProAsnAlaTrpValGluArgTrpLysAlaAlaGlyHisTyrGlnAlaGluAlaAla
3801 TTGTTGACGTGCACGGCAGATACACTTGGCTGATGCGGTGCTGATTACGACCGCTCACGCGTGGCAGCATCAGGGGAAAACTTATTTATCAGCCGAAAA
855▶ LeuLeuGlnCysThrAlaAspThrLeuAlaAspAlaValLeuI leThrThrAlaHisAlaTrpGlnHisGlnGlyLysThrLeuPheI leSerArgLysT
3901 CCTACCGGATTGATGGTAGTGGTCAAATGGCGATTACCGTTGATGTTGAAGTGGCGAGCGATACCCGCATCCGGCGGGATTGGCCTGAACTGCCAGCT
888▶ hrTyrArgI leAspGlySerGlyGlnMetAlaI leThrValAspValGluValAlaSerAspThrProHisProAlaArgI leGlyLeuAsnCysGlnLe
4001 GCGCAGGTAGCAGAGCGGTAACCTGGCTCGGATTAGGGCCGCAAGAAAATATCCCGACCGCCTACTGCGCCTGTTTTGACCGCTGGGATCTGCCA
921▶ uAlaGlnValAlaGluArgValAsnTrpLeuGlyLeuGlyProGlnGluAsnTyrProAspArgLeuThrAlaAlaCysPheAspArgTrpAspLeuPro

BspLU11I (4109)

4101 TTGTCAGACATGTATACCCCGTACGCTTCTCCCGAGCGAAAAACGGTCTGCGCTGCGGGACCGCGCAATTGAATTATGGCCACACCACTGGCGCGGCGACT
955▶ LeuSerAspMetTyrThrProTyrValPheProSerGluAsnGlyLeuArgCysGlyThrArgGluLeuAsnTyrGlyProHisGlnTrpArgGlyAspP
4201 TCCAGTTCAACATCAGCCGCTACAGTCAACAGCAACTGATGGAACCCAGCCATCGCCATCTGCTGCACGCGGAAGAAGGCACATGGCTGAATATCGACGG
988▶ heGlnPheAsnI leSerArgTyrSerGlnGlnGlnLeuMetGluThrSerHisArgHisLeuLeuHisAlaGluGluGlyThrTrpLeuAsnI leAspGI
4301 TTCCATATGGGGATTGGTGGCGAGCACTCTGGAGCCCGTCAATCGCGGCAATTACAGTGTAGCGCGGTCGCTACCATACCAGTTGGTCTGGTGT
1021▶ yPheHisMetGlyI leGlyGlyAspAspSerTrpSerProSerValSerAlaGluLeuGlnLeuSerAlaGlyArgTyrHisTyrGlnLeuValTrpCys

NheI (4429)

EcoRI (4423)

4401 CAAAAATAATAATCTAGTCGAGAATTTCGCTAGCTCGACATGATAAGATACATTGATGAGTTTGGACAACCACAACCTAGAATGCAGTGAAAAAATGCTT
1055▶ GlnLys • • •
4501 TATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAACAAGTTAAACA

SwaI (4694)

4601 ACAATTGCATTCATTTTATGTTTCAGGTTTACGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAAACCTCTACAAATGTGGTAGATCCATTTAAATGTT
4701 AATTAAGTAGCCATGACCAAAATCCCTTAACGTGAGTTTTTCGTTCCACTGAGCGTCAGACCCCGTAGAAAAGATCAAAGGATCTTCTTGAGATCCTTTTT
4801 TTCTGCGCGTAATCTGCTGCTGCAAAACAAAAAACCCGCTACCAGCGGTGGTTTTGTTTCCGGATCAAGAGTCACTCAACTCTTTTTCCGAAGGTAAC
4901 TGGCTTACGACAGCGCAGATACCAAACTACTGTTCTTCTAGTGTAGCCGTAGTTAGGCCACCACTTCAAGAACTCTGTAGCACCAGCTACATACCTCGCT
5001 CTGCTAATCCTGTTACCAGTGGCTGCTGCCAGTGGCGATAAGTCTGCTCTTACCAGGTTGGACTCAAGACGATAGTTACCAGGATAAGGCGCAGCGTCCG
5101 GCTGAACGGGGGGTTCGTGCACACAGCCAGCTTGGAGCGAACGACCTACACCGAACTGAGATACCTACAGCGTGTAGTATGAGAAAGCCACGCTTCC
5201 CGAAGGGAGAAAGCGGCAGGATATCCGTAAGCGGCAGGGTGGAAACAGGAGCGCACAGGGAGCTTCCAGGGGAAACGCCTGGTATCTTTATAGT
5301 CCTGTCCGGTTTTCCACCTCTGACTTGAGCGCTGATTTTTGTGATGCTGCTCAGGGGGCGGAGCCTATGGAAAAACCGCAGCAACCGCGCCTTTTTAC

BspLU11I (5432)

AseI (5470)

5401 GGTTCCTGGCCTTTTGTGCGCCTTTTGTCTCATGTCTTAATTAATTTTTCAAAAAGTAGTTGACAATTAATCATCGGCATAGTATATCGGCATAGTAT
5501 AATACGACTCACTATAAGGAGGCCATCATGGCCAAGTTGACCAGTGTCTCCAGTGTCTCACAGCCAGGGATGTGGCTGGAGCTGTTGAGTTCTGGACTG
1▶ MetAlaLysLeuThrSerAlaValProValLeuThrAlaArgAspValAlaGlyAlaValGluPheTrpThrA
5601 ACAGTTTGGGGTCTCCAGAGATTTTGTGGAGGATGACTTTCAGGTTGGTTCAGAGATGATGTACCCTGTTTCTCAGCAGTCCAGGACCAGGTGGT
25▶ spArgLeuGlyPheSerArgAspPheValGluAspAspPheAlaGlyValValArgAspAspValThrLeuPheI leSerAlaValGlnAspGlnValVa
5701 GCCTGACAACACCCTGGCTTGGGTGTGGGTGAGAGGACTGGATGAGCTGATGCTGAGTGGAGTGGTGGTCTCCACCAACTTCAGGGATGCCAGTGGC
58▶ IProAspAsnThrLeuAlaTrpValTrpValArgGlyLeuAspGluLeuTyrAlaGluTrpSerGluValValSerThrAsnPheArgAspAlaSerGly
5801 CTTGCCATGACAGAGATTGGAGAGCAGCCCTGGGGGAGAGAGTTGCCCTGAGAGACCCAGCAGGCAACTGTGTGCACTTGTGGCAGAGGAGCAGGACT
92▶ ProAlaMetThrGluI leGlyGluGlnProTrpGlyArgGluPheAlaLeuArgAspProAlaGlyAsnCysValHisPheValAlaGluGluGlnAsp •
5901 GAGGATAAGAATTGAGTTTCAGAAAAGGGGCGCTGAGTGGCCCTTTTTCAACTTAATTA
125▶ • •