



Bsp120I (7)
EcoO1091 (7)
PstI (6)
SdaI (6) SpeI (13) EcoNI (32) SmaI (46) Srfl (46) BspEI (83)
Acc65I (77)

1 CCTGCAGGGCCCACTAGTGTCCCAACGCTCCAGCAGGGGACGCCGGCTGGGGGGGGAGTACAGCCGCGCTGGTACCACCGGACAAAGCCTGCC

101 CGCGCCCCGCCCCGCGTACCGCCCCGCGCCGCCCCATCCCGCCCCCTGCCGCGGGTCCGGCGGCTTAAAGCCAATAGGAACCGCCGCC

201 GTTGTTCCTCGTACGGCCGGGACGCCAATTGTGGCGGCTCGGGGCTCTGTGGCTCTTTCGGCGCAAAAAGGATTGGCGGTAAGTGGCCGGAC

301 TTTGACGAGCGCGCGCGGGGGCGGAGCGGGATCGAGCCCTCGCCGAGGCTCGCCGCATGGGCGCCGCGCCGCCCTGTACCCGGGCGCG

401 CGGGGCGGTGAGCGTCATGAGCGGTTCTCATCATCATCATCATCATGGTATGGCTAGCATGACTGGTGGACGCAAAATGGTTCGGGATCTGTACGACGAT

501 GACGATAAGGTACCTAAGGATCAGCTTGGAGTTGATCCCGTCTTTTACAACGCTGTGACTGGGAAAACCTGGCGTTACCCAACCTAATCGCCTTGACG

601 CACATCCCCCTTTCGCCAGCTGGCGTAATAGCGAAGAGGCCCGCACCGATCGCCCTTCCCAACAGTTGCGCAGCCTGAATGGCGAATGGCGCTTTCCTG

701 GTTTCGGCACCAGAAGCGGTGCCGAAAAGCTGGCTGGAGTGGCATCTTCTGAGGCCGATACTGCTGCTGCCCTCAAACCTGGCAGATGCACGGTTAC

801 GATGCGCCATCTACACCAACGTAACCTATCCATTACGGTCAATCCGCGTTTGTCCACGGAGAATCCGACGGGTTGTACTCGCTCACATTTAATG

901 TTGATGAAAGCTGGCTACAGGAAGGCCAGCAGCGAATATTTTGTGATGGCGTTAACTCGGCGTTTCATCTGTGGTGAACGGGCGCTGGGTCGGTTACGG

1001 CCAGGACAGTCTGTTTGGCGTCTGAATTTGACCTGAGCGCATTTTACGCGCCGGAGAAAACCGCTCGCGGTGATGGTCTGCGTTGGAGTGACGGCAGT

1101 TATCTGGAAGATCAGGATATGTGGCGGATGAGCGGCATTTTCCGTCGCTCGTGCATAAACCGACTACACAATCAGCGATTTCCATGTTGCCA

1201 CTCGCTTAAATGATGATTTACGCCGCGCTGACTGGAGGCTGAAGTTGAGATGTGCGCGAGTTGCGTACTACCTACGGTAACAGTTTCTTATGGCA

1301 GGGTGAACGAGGTGCGCAGCGCACCGCCTTTCGGCGGTGAAATTAATCATGAGCGTGGTGGTATGCCGATCGCGTCACTACGCTGTAACGCT

1401 GAAAACCCGAACTGTGGAGCGCGAAATCCCGAATCTCTATCGTGGGTGGTGAACGACACCGCGGACGGCAGCGTATTGAAGCAGAAGCCTGCG

1501 ATGTCGGTTTCCGCGAGGTGCGGATTGAAAATGGTCTGCTGCTGCTGAACGGCAAGCGTTGCTGATTCGAGGCGTTAACCGTACGAGCATCATCTCT

1601 GCATGGTCAGGTCATGGATGAGCAGACGATGGTGCAGGATATCTGCTGATGAAGCAGAACAACTTTAACGCCGTGCGCTGTTTCGATTATCCGAACCAT

1701 CCGCTGTGGTACACGCTGTGCGACCGCTACGGCCTGTATGTGGTGGATGAAGCCCAATTTGAAACCCACGGCATGGTGCCAATGAATCGTCTGACCGATG

1801 ATCCGCGCTGGCTACCGCGATGAGCGAACCGGTAACGCGAATGGTGCAGCGCATGTAATCACCCGAGTGTGATCATCTGGTCTGGGGAATGAATC

1901 AGGCCACGGCGTAATCACGACGCGCTGTATCGCTGGATCAAATCTGCTGATCCTTCCCGCGGTGAGTATGAAGCGCGGAGCCGACACCGCC

2001 ACCGATATTATTTGCCGATGTACGCGCGTGGATGAAGACGACCCCTTCCCGGCTGTGCCGAAATGGTCCATCAAAAAATGGCTTTCGCTACCTGGAG

2101 AGACGCGCCGCTGATCCTTTGCGAATACGCCACGCGATGGGTAACAGTCTTGGCGGTTTCGCTAAATACTGGCAGCGGTTTCGTCAGTATCCCGTTT

2201 ACAGGGCGCTTCTGCTGGGACTGGGTGGATCAGTCTGATTAATATGATGAAAACGGCAACCCGTTGGTCCGCTTACGGCGGTGATTTTGGCGATACG

2301 CCGAACGATCGCCAGTCTGTATGAACGGTCTGGTCTTTCGCGACCGCACGCCGATCCAGCGCTGACGGAAGCAAAACACCAGCAGCAGTTCCTCCAGT

2401 TCCGTTTATCCGGCAAACCATCGAAGTGACCAGCGAATACCTGTTCCGTCATAGCGATAACGAGCTCTGCACACTGGATGGTGGCGCTGGATGGTAAGCC

2501 GCTGGCAAGCGGTGAAGTGCTCTGGATGTCGCTCCACAAGGTAACAGTTGATTGAACTGCCTGAACTACCGCAGCCGGAGAGCGCCGGCAACTCTGG

2601 CTCACAGTACGCTAGTGAACCGAACGCGACCGCATGGTCAGAAAGCCGGGCACATCAGCGCCTGGCAGCAGTGGCGTCTGGCGAAAACCTCAGTGTGA

2701

LeuThr Val A rgVal Val Gl nP roAsnAl aThr Al aTrpSer Gl uAl aGl yHi s I l eSer Al aTrpGl nGl nTrpArgLeuAl aGl uAsnLeuSer Val T
 CGCTCCCCGCCGGTCCACGCCATCCGCATCTGACCACCAGCGAAATGGATTTTTCATCGAGCTGGGTAATAAGCGTTGGCAATTTAACCCAGCTC
 762▶ hr LeuP roAl aAl aSer Hi sAl a l l eP roHi sLeuThr Thr Ser Gl uMe tAspPheCysI l eGl uLeuGl yAsnLysArgTrpGl nPheAsnArgGl nSe
 2801 AGGCTTTCTTTCACAGATGTGGATTGGCGATAAAAAACAAGTCTGACGCGCTGCGCGATCAGTTCACCCGTGCACCCGTGGATAACGACATTGGCGTA
 795▶ r Gl yPheLeuSer Gl nMe tTrpI l eGl yAspLysLysGl nLeuLeuThr P roLeuArgAspGl nPheThr ArgAl aP roLeuAspAsnAspI l eGl yVal
 2901 AGTGAAGCGACCCGATTGACCTAACCGCTGGTCTGCAACGCTGGAAGCGCGGGCCATTACCAGGCCGAAGCAGCGTTGTTGCAGTGCACGGCAGATA
 829▶ Ser Gl uAl aThr ArgI l eAspP roAsnAl aTrpVal Gl uArgTrpLysAl aAl aGl yHi sTyrGl nAl aGl uAl aAl aLeuLeuGl nCysThr Al aAspT
 3001 CACTTGCTGATGCGGTGCTGATTACGACCCTCACGCTGGCAGCATCAGGGGAAAACCTTATTTATCAGCCGAAAACCTACCGATTGATGGTAGTGG
 862▶ hr LeuAl aAspAl aVal LeuI l eThr Thr Al aHi sAl aTrpGl nHi sGl nGl yLysThr LeuPheI l eSer ArgLysThr TyrArgI l eAspGl ySer Gl
 3101 TCAAATGGCGATTACCGTTGATGTTGAAGTGGCGAGCGATACCCGCATCCGGCGCGGATTGGCCTGAACTGCCAGCTGGCGCAGGTAGCAGAGCGGGTA
 895▶ yGl nMe tAl a l l eThr Val AspVal Gl uVal Al aSer AspThr P roHi sP roAl aArgI l eGl yLeuAsnCysGl nLeuAl aGl nVal Al aGl uArgVal
Bst1107I (3289)
BspLU11I (3286) BsiWI (3297)
 3201 AACTGGCTCGATTAGGGCCGAAGAAAATATCCCGACCCGCTTACTGCCGCTGTTTTGACCGCTGGGATCTGCCATTGTCTAGACATGTATACCCCGT
 929▶ AsnTrpLeuGl yLeuGl yProGl nGl uAsnTyrP roAspArgLeuThr Al aAl aCysPheAspArgT rpAspLeuP roLeuSer AspMe tTyrThr P roT
BbsI (3296)
 3301 ACGTCTTCCCGAGCGAAAACGGTCTGCGCTGCGGGACGCGGAATTGAATTATGGCCACACCAGTGGCGCGGCGACTTCCAGTTCAACATCAGCCGCTA
 962▶ yrVal PheP roSer Gl uAsnGl yLeuArgCysGl yThr ArgGl uLeuAsnTyrGl yProHi sGl nTrpArgGl yAspPheGl nPheAsnI l eSer ArgTy
NdeI (3484)
 3401 CAGTCAACAGCAACTGATGGAACAGCCATCGCCATCTGCTGCACGCGGAAGAAGGCACATGGCTGAATATCGACGGTTTCCATATGGGGATTGGTGGC
 995▶ r Ser Gl nGl nGl nLeuMe tGl uThr Ser Hi sArgHi sLeuLeuHi sAl aGl uGl uGl yThr TrpLeuAsnI l eAspGl yPheHi sMe tGl yI l eGl yGl y
EcoRI (3600)
 3501 GACGACTCTGGAGCCCGTCAAGTATCGCGGAATTACAGCTGAGCGCCGGTCTACCATACCAGTTGGTCTGGTGTCAAAAATAATAATCTAGTCGAG
 1029▶ AspAspSer TrpSer P roSer Val Ser Al aGl uLeuGl nLeuSer Al aGl yA rgTyrHi sTyrGl nLeuVal TrpCysGl nLys●●●
NheI (3606)
 3601 AATTCGCTAGCTCGACATGATAAGATACATTGATGAGTTTGGACAAACCACTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCT

MfeI (3780)
 3701 ATTGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAAACAATTCATTCTTTATGTT

DraI (3868)
SwaI (3871)
 3801 TCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAAACCTCTACAAATGTGGTAGATCCATTTAAATGTTAATTAAGTAACTAGCCATGACCAAAA
 3901 TCCCTTAACGTGAGTTTTCTGTTCCACTGAGCGTCAGACCCCGTAGAAAAGATCAAAGGATCTTCTTGAGATCCTTTTTTCTGCGCGTAATCTGCTGCTT

 4001 GCAAAACAAAAAACACCCTACCAGCGGTGGTTTGTTCGGGATCAAGAGCTACCAACTCTTTTTCCGAAGGTAAGTGGCTTCAGCAGAGCGCAGATA

 4101 CCAAATACTGTTCTTCTAGTGTAGCCGTAGTTAGGCCACCACTCAAGAACTCTGTAGCACCGCTACATACCTCGCTCTGCTAATCCTGTTACCAGTGG

 4201 CTGCTGCCAGTGGCGATAAGTCTGTCTTACCAGGTTGGACTCAAGACGATAGTTACCGGATAAGGGCGACGGTCTGGGCTGAACGGGGGTTCTGTGCAC

 4301 ACAGCCAGCTTGGAGCGAACGACCTACCCGAAGTACCTACAGCGTGTAGCTATGAGAAAGCGCCACGCTTCCGAAGGGAGAAAGCGGACAGG

 4401 TATCCGGTAAGCGGCAGGTCGGAACAGGAGAGCGACGAGGGAGCTTCCAGGGGAAAACGCTGGTATCTTTATAGTCTGTGCGGTTTCGCCACCTCT

 4501 GACTTGAGCGTCGATTTTTGTGATGCTCGTCAGGGGGCGGAGCCTATGAAAAACGCCAGCAACCGGCCTTTTTACGGTTCCTGGCCTTTTGTGCGCC

BspLU11I (4609)
AseI (4647)
 4601 TTTTGCTCACATGTTCTTAATTAATTTTTCAAAGTAGTTGACAATTAATCATCGGCATAGTATATCGGCATAGTATAATACGACTCACTATAGGAGGG

MscI (4709)
 4701 CCATCATGGCCAAGTTGACCACTGCTGCCAGTGTCTCACAGCCAGGGATGTGGCTGGAGCTGTTGAGTTCTGGACTGACAGGTTGGGGTCTCCAGAGA
 1▶ MetAl aLysLeuThr Ser Al aVal P roVal LeuThr Al aArgAspVal Al aGl yAl aVal Gl uPheTrpThrAspArgLeuGl yPheSer ArgAs
 4801 TTTTGTGGAGGATGACTTTGCAAGTGTGGTCAGAGATGATGTACCCTGTTTCATCTCAGCAGTCCAGGACCAGGTGGTGCCTGACAACACCCTGGCTTGG
 32▶ pPheVal Gl uAspAspPheAl aGl yVal Val A rgAspAspVal Thr LeuPheI l eSer Al aVal Gl nAspGl nVal Val P roAspAsnThr LeuAl aTrp
 4901 GTGTGGGTGAGAGGACTGGATGAGCTGTATGCTGAGTGGAGTGGTGGTCTCCACCAACTTCAGGGATGCCAGTGGCCCTGCCATGACAGAGATTGGAG
 66▶ Val TrpVal A rgGl yLeuAspGl uLeuTyrAl aGl uTrpSer Gl uVal Val Ser ThrAsnPheArgAspAl aSer Gl yProAl aMe tThr Gl uI l eGl yG
DraIII (5059)
 5001 AGCAGCCCTGGGGAGAGAGTTTGCCTGAGAGACCCAGCAGGCAACTGTGTGCACTTTGTGGCAGAGGAGCAGGACTGAGGATAAGAATTGAGTTTCAG
 99▶ l uGl nP roTrpGl yA rgGl uPheAl aLeuArgAspP roAl aGl yAsnCysVal Hi sPheVal Al aGl uGl uGl nAsp●●●
EcoO109I (5107)
 5101 AAAAGGGGGCCTGAGTGGCCCTTTTTTCAACTTAATTA
