



PvuI (7)
SgfI (6)
MfeI (82) **EcoNI (96)**

1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA

101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203)
HindIII (245) **Bsu36I (291)**

201 GTGAACGTTCTTTTTTCGCAACGGGTTTGGCCGACAGACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGGCC

301 GCCATCCACGCGGTTGAGTCGCGTTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCGCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

NcoI (560)

KasI (535)
BstEII (555)

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTACCATTGGAATATCAATCTTCAAGTAAAAATTTGGATGAAGA

1▶ M E Y Q S S V E N L D E D

601 TGGATATACTCAATTAGACTTCAGCTCTCGCAACATCACAGGAGATCTGTAGTCTCAGAGAAAAGGGCTTTGTGCTGCATCCTCTCATTGGCGTCTGATT

13▶ G Y T Q L D F S S R N I T R R S V V S E K G L C A A S S H W R L I

BglII (643)

701 GCTGTGACTCTGGGCATTTTATGCTCAGTGTGCTGGTATAACTGTGGTCTGAGTACCTCGGGAGTTTTCTCTAGCTCTTGTCCCCCTAACTGGATCA

47▶ A V T L G I L C S V M L V I T V V L S T S G V F S S S C P P N W I

801 CACATGAGGATAGCTGTTATCTATTTAGCACACTATTAGATTCCTGGGATGGAAGTAAAAGACAATGCTTTCAACTGGGCTCTCATCTCTGAAGATAGA

80▶ T H E D S C Y L F S T L L D S W D G S K R Q C F Q L G S H L L K I D

NcoI (994)

BbsI (936)
BstXI (994)

901 CAGCTCAAAGAGTTGGAGTTTATATCAAGGCAAGTGTCTCCAGCCTGATCATTCTTTGGATAGGGCTTCTCGCGCTCAGACAGAAGAACCATGG

113▶ S S K E L E F I S R Q V S S Q P D H S F W I G L S R R Q T E E P W

1001 CTCTGGGAGGATGGCTCCACCTTGTGTCTAACCTGTTCCAAATCAGAAGTACAGTTACGAAAAAGACTCATCTCACAAGTGTGCATGGATCCATGTGT

147▶ L W E D G S T L L S N L F Q I R S T V T E K D S S H N C A W I H V

BamHI (1088)

MscI (1174)
NheI (1168)

1101 CAGACATTTACGACCAACTTTGTAGTGTGCATTATACAGTATTTGTGAGAAGAAGTTGTGAGTATAAGCTAGCTGGCCAGACATGATAAGATACATTGA

180▶ S D I Y D Q L C S V H S Y S I C E K K L S V •

1201 TGAGTTTGACAAACCACAACACTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAAT

HpaI (1306)
MfeI (1317)

1301 AAACAAGTTAAACAACAACATTCATCTTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAAACCTCTACAAATGTGGTA

EcoRI (1402)

1401 TGGAAATCTAAAATACAGCATAGCAAACTTTAACCTCCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCT

SapI (1584)

1501 GTTGCCAATGTGCATTAGCTGTTTGACGCTCACCTCTTTTCATGGAGTTAAGATATAGTGTATTTTCCAAGGTTTGAAGTACTCTTCTATTCTTTA

SspI (1641)
SwaI (1655)

1601 TGTTTTAAATGCACTGACCTCCACATTCCTTTTATGTAATAATTCAGAAATAATTTAAATACATCATTGCAATGAAATAAATGTTTTTATTAGGC

EcoO109I (1716)

1701 AGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTGTGGACTTAGGGAACAAGGAACCTTTAATAGAAATTTGACAGCAAGAAAGCG

1801 AGCTTCTAGCTTTAGTTCCTGGTACTTGGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTATCTCAATGAGCACAAGCAGTCAG

141▶ • N R T Y K L P I L E E I T T K V L K G N M E I L V F C D P

SacI (1916)
BstXI (1945)

1901 GAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAAT

111▶ A Y D S I L E R C M G C P S V V R I S R D V E D S Y P H R V A V I

StuI (2080)

2001 GGTGTCAAAGTCTTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTGACCCTGCCAATGTAGGCTCAATGTGGACAGCA

78▶ T D F D K Q G N S V A S G I A I A E A C V T V R G I Y A E I H V A

2101 GAGATGATCTCCCGAGTCTTGGTCTGATGGCCGCCCCGACATGGTGTCTTGTCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACAGCT

44▶ S I I E G T K T R I A A G V H H K N D E Y L M T I K E T A V E V L E

BbsI (2226)
XmnI (2222)
AseI (2288)

2201 CCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGGTGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAA

11▶ L D Q Q S I N F T K M

SacI (2345)

2301 AACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACATAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCTACCGCCATTGCGTCAA

1▶

2401 TGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAACAAACTCCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCCGT
SpeI (2443)
←

2501 GAGTCAAACCGCTATCCACGCCATTGATGTAAGTCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTAAGTCCCAAGTAGGAAAGT
SnaBI (2571)

2601 CCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGC
NdeI (2676)

2701 CAAGTGGGAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTACTATGGGAACATACGTCATTATTGACGTCAATGGG

2801 CGGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGC
PacI (2862)
PstI (2855)
SdaI (2854)
BspLU11I (2872)

2901 CAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAAC
←

3001 CCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTC

3101 TCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGACGAAACCCCC
ApaLI (3186)

3201 CGTTCAGCCCGACCGCTGCGCCTTATCCGTAAGTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGG

3301 ATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGC

3401 TGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTAC

3501 CGGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAAACGAAAACTCACGTTAAGGGATTTTGGTCATGGCT

3601 AGTTAATTAACATTTAAATC AGCGGCCGAATAAAATATCTTTATTTTATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCT
EagI (3622)
PacI (3602) SwaI (3611) NotI (3621)

3701 CCATCAAAACAAAACGAAACAAAACAAACTAGCAAAATAGGCTGTCCCAGTGAAGTGCAGGTGCCAGAACATTTCTCTATCGAA