



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

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCGTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTCGCAACGGGTTTGGCCGAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCGCCCGCCGCTACCTGAGGCC
 301 GCCATCCACGCGGTTGAGTGCAGTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGCTTTTGTTCGTTT

AgeI (552)
NcoI (568)

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGCGCCTACCTGAGATCACCGGTAGGAGGGCCACCATGGAAACCGATCAGTGTGAGTATATACACT
 601 TCTGATACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCTCTGC
 111▶ S D N Y S E E V G S G D Y D S N K E P C F R D E N V H F N R I F L

BstEII (765)

701 CCACCATCTACTTCATCATCTTCTTGTACTGGCAGTGCAGCAATGGATTGGTGTGATCCTGGTTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA
 44▶ P T I Y F I I F L T G I V G N G L V I L V M G Y Q K K L R S M T D K

NcoI (868)

801 GTACCGGCTGCACCTGTGAGTGGCTGACCTCCTTTTGTGATCACACTCCCCTTCTGGGAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTGG
 77▶ Y R L H L S V A D L L F V I T L P F W A V D A M A D W Y F G K F L

901 TGTAAGGCTGTCCATATCATCTACTGTCAACCTCTACAGCAGCTTCTCATCTGGCTTTCATCAGCTGGACCGTTACCTCGCCATTGTCCACGCCA
 111▶ C K A V H I I Y T V N L Y S S V L I L A F I S L D R Y L A I V H A

BamHI (1057)

1001 CCAACAGTCAAAGGCCAAGGAACTGCTGGCTGAAAAGCAGTCTATGTGGGCGTCTGGATCCCAAGCCCTCCTCTGACTATACTGACTTCATCTTTTGC
 144▶ T N S Q R P R K L L A E K A V Y V G V W I P A L L L T I P D F I F A

PshAI (1116)

1101 CGACGTCAGCCAGGGGACATCAGTCCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTCATTCAGCAT
 177▶ D V S Q G D I S Q G D D R Y I C D R L Y P D S L W M V V F Q F Q H

1201 ATAATGGTGGGTCTCATCTGCCCAGCATCGTCACTCTCCTGTTACTGCATCATCATCTCTAAGCTGTCACTCCAAGGGCCACCAGAAGCGCAAGG
 211▶ I M V G L I L P G I V I L S C Y C I I I S K L S H S K G H Q K R K

PshAI (1307)
BsaBI (1364)

1301 CCCTCAAGACGACAGTCACTCCTCATCTAGCTTTCTTTGCTGCTGGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCTTTTGGAGTCAT
 244▶ A L K T T V I L I L A F F A C W L P Y Y V G I S I D S F I L L G V I

ApaLI (1428) **BsaBI (1439)**

1401 CAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTCCACTGTTGCTGAACCCCATCTATGCC
 277▶ K Q G C D F E S I V H K W I S I T E A L A F F H C C L N P I L Y A

SphI (1532)

1501 TTCCTCGGGGCCAAGTTCAAAGCTCTGCCAGCATGCACTCAACTCCATGAGCAGAGGCTCCAGCCTCAAGATCCTTTCAAAGGAAAGCGGGTGGAC
 311▶ F L G A K F K S S A Q H A L N S M S R G S S L K I L S K G K R G G

MscI (1663)

NheI (1657)

1601 ACTCTCCGTCCTCCAGGAGTCAGAATCTCCAGTTTTCACTCCAGCTAACCTTATGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTGGAC
 344▶ H S S V S T E S E S S S F H S S •

HpaI (1795)

1701 AAACCACAAGTGAATGCAGTGAAGAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAA

MfeI (1806)
EcoRI (1891)

1801 CAACAACAATTGCATTCATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAATGTGGTATGGAATCTAA
 1901 AATACAGCATAGCAAACTTTAACCTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGT

SapI (2073)

2001 GCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGTATTTTCCCAAGGTTTGAAGTACTGCTCTTCATTTCTTTATGTTTTAAATG

SspI (2130) **SwaI (2144)**

2101 CACTGACCTCCACATTCCTTTTATGTAATAATTCAGAAATAATTTAAATACATCATTGCAATGAAATAAATGTTTTTATTAGGCAGAATCCAGAT
 2201 GCTCAAGGCCCTTATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCT

2301 TTAGTTCCTGGTGTACTTGGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGCAGTCCAGGAGCATAGTCA
 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 A Y D

SacI (2405)
BstXI (2434)

2401 GAGATGAGCTCTGTCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGT
 107▶ 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 T D F D

StuI (2569)

2501 CCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCCAGCAGACAGTGCACCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTC
 74▶ 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 S I I E

2601 CCCAGTCTTGGTCCTGATGGCCGCCCGACATGGTGCTTGTTCCTCATAGAGCATGGTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGC
414 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 L D Q
BbsI (2715)
XmnI (2711) AseI (2777)
2701 TGAGAGATGTTGAAGTCTTCATGGTGGCCCTCCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGGA
74 Q S I N F T K M
SacI (2834)
2801 TGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGT
SpeI (2932)
2901 TGTACGACATTTTGAAAGTCCCGTTGATTTACTAGTCAAAACAAACTCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCG
SnaBI (3060)
3001 CTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTC
NdeI (3165)
3101 ATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAG
3201 TTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGGTCTGTT
PacI (3351)
PstI (3344) SdaI (3343) BspLU11I (3361)
3301 GGGCGTCCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGAAAAGGCCAGGAACCGTA
3401 AAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACT
3501 ATAAAGATACCAGGCGTTTCCCTGGAAGCTCCCTCGTGGCTCTCCTGTTCCGACCCTGCCGTTACCGGATACTGTCCGCCTTTCTCCCTTCGGGA
ApaLI (3675)
3601 AGCGTGGCGCTTTTCATAGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTTCCAGCCG
3701 ACCGCTGCGCTTATCCGTAACATATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGC
3801 GAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTT
3901 ACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAACACCCTGTTAGCGGTGGTTTTTTTGTGTTGCAAGCAGCAGATTACGCGCAGAAAAA
PacI (4091)
4001 AAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAAC
EagI (4111)
SwaI (4100) NotI (4110)
4101 ATTTAAATCAGCGGCCGCAATAAAATATCTTTATTTTTCATTACATCTGTGTGTTGGTTTTTTGTGTAATCGTAACTAACATACGCTCTCCATCAAACA
4201 AAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA