



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

1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGCAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203)
Bsu36I (291)

201 GTGAACGTTCTTTTTCGCAACGGGTTTCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCCGCCGCCCTACCTGAGGCC
 301 GCCATCCACGCCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)

401 GGGCCTTTGTCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGTCTTTGTTTCGTTT

NcoI (560)
BstEII (555)
AgeI (552)
PstI (571)

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGCCCTACCTGAGATCACCGGTACCATGGCTGTCCTGCAGAAATCTATGAGTTTTCCCTTAT
1▶ M A V L Q K S M S F S L M

PvuII (615)
Bsp120I (641)
DraIII (672)

601 GGGGACTTTGGCCGACGCTGCCTGCTTCTCATTGCCCTGTGGGCCAGGAGGCAAATGCGCTGCCCAACAACCCGGTGCAAGCTTGAAGTGTCCAAC
 13▶ G T L A A S C L L L I A L W A Q E A N A L P I N T R C K L E V S N

SfiI (738)
MscI (737)

701 TTCCAGCAGCCGTACATCGTCAACCGCACCTTTATGCTGGCCAAGGAGGCCAGCCTTGCAGATAACAACACAGACGTCGGGCTCATCGGGGAGAACTGT
 47▶ F Q Q P Y I V N R T F M L A K E A S L A D N N T D V R L I G E K L

BbsI (862)

801 TCCGAGGAGTCAGTGCTAAGGATCAGTGTACCTGATGAAGCAGGTGCTCAACTCACCTGGAAGAGCTTCTGCTCCCCAGTCAGACAGGTTCCAGCC
 80▶ F R G V S A K D Q C Y L M K Q V L N F T L E D V L L P Q S D R F Q P
 901 CTACATGCAGGAGGTGGTGCTTCTGACCAAACCTCAGCAATCAGCTCAGCTCCTGTACATCAGCGGTGACGACCAGAATCCAGAAGAATGTCAGA
 113▶ Y M Q E V V P F L T K L S N Q L S S C H I S G D D Q N I Q K N V R
 1001 AGGCTGAAGGAGACAGTGAAGAACTGGAGAGAGTGGAGAGATCAAAAGCATTGGGAACTGGACCTGCTGTTTATGTCTCTGAGAAATGCTTGCCTCT
 147▶ R L K E T V K K L G E S G E I K A I G E L D L L F M S L R N A C V

MscI (1148)
NheI (1142)

1101 GAGCGAGAAGATGCTAGAAAACGAAGAACTGCTCCTTCTGCTGCTAGCTGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGA
 180▶ •

HpaI (1280) **MfeI (1291)**

1200 ATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAAGTTAAACAACAACATTGCA

EcoRI (1376)

1300 TTCATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAAATTTAAAATACAGCATAGCA
 1400 AAACTTTAACTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTG

SapI (1558)

1500 CAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGATTTTCCCAAGGTTTGAAGTACTGCTCTTCTTATGTTTAAATGCACTGACCTCCAC

SspI (1615)
SwaI (1629)
EcoO109I (1690)

1600 ATTCCCTTTTATGAAAAATTCAGAAATAATTTAAATACATCATTGCAATGAAAAATAATGTTTTTATTAGGCAGAAATCCAGATGCTCAAGGCCCTTC
 1700 ATAATATCCCCAGTTTAGTGTGGACTTAGGGAACAAAGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGT
141▶ • N R T Y

SacI (1890)

1800 ACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCT
 136▶ 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 S I L E R

BstXI (1919)

1900 GCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTG
 103▶ 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 K Q G N

StuI (2054)

2000 CTCACAGCAGACCAATGGCAATGGCTTTCAGCAGACAGTACCCTGCCAATGTAGGCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCC
 69▶ 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 G T K T R
 2100 TGATGGCCGCCGACATGGTGTCTGCTCCTCATAGAGCATGGTGTCTTCTCAGTGGCGACTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAA
 36▶ 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 Q S I N F

BbsI (2200)
AseI (2262)

2200 GGTCTTCATGGTGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCT
 3▶ T K M

SacI (2319)

2300 IATCTGACGGTTCACAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTT

SpeI (2417)

2400 GGAAAGTCCCGTTGATTTACTAGTCAAAACAAACTCCATTGACGTCAATGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCAT

2500 TGATGTA CTG CCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTA CTG CCAAGTAGGAAAGTCCCATAAGGTCATGTA CTG GGCATA

SnaBI (2545)

2600 ATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTA CTG CCAAGTGGGCAGTTTACCGTAAATAC

NdeI (2650)

2700 TCCACCCATTGACGTCAATGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGGTCTGTTGGGCGGT CAGCCAG

PacI (2836)

PstI (2829)

SdaI (2828)

BspLU11I (2846)

2800 GCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATTAAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTG

2900 CTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGG

3000 CGTTTCCCCTGGAAGCTCCCTCGTGCGCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCCTTCTCCCTTCGGGAAGCGTGCGCTTTC

ApaLI (3160)

3100 TCATAGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTT CAGCCCGACCGCTGCGCTTA

3200 TCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCG

3300 GTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAG

3400 AGTTGGTAGCTCTTGATCCGGCAAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAA

EagI (3596)

PacI (3576)

SwaI (3585)

NotI (3595)

3500 GATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGG

3600 CCGCAATAAAATATCTTTATTTTATTACATCTGTGTGTTGGTTTTTTTGTGTAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAAC

3700 AAAC TAGCAAAATAGGCTGTCCCAAGTCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA