



PvuI (7)
SgfI (6) **MfeI (82)**
1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGCAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGTGTCTGTACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203)
HindIII (245)
PvuII (239)
Bsu36I (291)
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCGCCGCCCTACCTGAGGCC
301 GCCATCCACGCCGGTTGAGTCGCGTTCTGCCGCCTCCCGCCTGTGGTGCTCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCGCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

BspLU11I (560)
AgeI (552)
SspI (568)
BstXI (580)
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCCTACCTGAGATCACCGGTCAACATGTCAAATATTACAGATCCACAGATGTGGGATTTTGA
1▶ M S N I T D P Q M W D F D

SphI (617)
PstI (626)
601 TGATCTAAATTTACTGGCATGCCACTGCAGATGAAGATTACAGCCCTGTATGCTAGAAAAGTGGACACTCAACAAGTATGTTGTGATCATCGCCTAC
13▶ D L N F T G M P P A D E D Y S P C M L E T E T L N K Y V V I I A Y

BsrBI (771)
701 GCCCTAGTGTTCCTGCTGAGCCTGCTGGGAAACTCCCTGGTGATGCTGGTCTATTATACAGCAGGGTCCGCCGCTCCGCTCACTGATGCTACCTGCTGA
47▶ A L V F L L S L L G N S L L V M L V I L Y S R V G R S V T D V Y L L
801 ACCTGGCCTTGGCCGACCTACTCTTGCCTTGCCTTCCCATGGCCGCTCCAAAGTGAATGGCTGGATTGGCACATTCCTGTGCAAGGTGGT
80▶ N L A L A D L L F A L T L P I W A A S K V N G W I F G T F L C K V V

MscI (971)
901 CTCCTCTGAAGGAAGTCAACTTCTACAGTGGCATCCTGCTGTTGGCCTGCATCAGTGTGGACCGTTACCTGGCCATTGTCCATGCCACACGCACACTG
113▶ S L L K E V N F Y S G I L L L A C I S V D R Y L A I V H A T R T L
1001 ACCCAGAAGCGTCACTTGGTCAAGTTTGTCTTGGCTGCTGGGACTGTCTATGAATCTGCTCCCTGCCCTTCTTCCCTTCCGCCAGGCTTACCATC
147▶ T Q K R H L V K F V C L G C W G L S M N L S L P F F L F R Q A Y H

BamHI (1169)
1101 CAACAATTCCAGTCCAGTTTGTATGAGTCCCTGGGAAATGACACAGCAAATGGCGGATGGTGTTCGGATCCTGCCTCACACCTTTGGCTTCATCGT
180▶ P N N S S P V C Y E V L G N D T A K W R M V L R I L P H T F G F I V
1201 GCCGCTGTTTGTGATGCTGTTCTGCTATGGATTACCCTGCGTACACTGTTTAAAGCCACATGGGGCAGAAGCACCGAGCCATGAGGGTCTATTTGCT
213▶ P L F V M L F C Y G F T L R T L F K A H M G Q K H R A M R V I F A

BspHI (1361)
1301 GTCGCTCATCTTCTGCTTTGCTGGCTGCCCTACAACCTGGTCTGCTGGCAGACACCCTCATGAGGACCCAGGTGATCCAGGAGAGCTGTGAGCGCC
247▶ V V L I F L L C W L P Y N L V L L A D T L M R T Q V I Q E S C E R

XcmI (1427)
Bsp120I (1415)
1401 GCAACAACATCGGCCGGCCCTGGATGCCACTGAGATTCTGGGATTTCTCCATAGCTGCCTCAACCCCATCATCTACGCCTTCATCGGCCAAAATTTTCG
280▶ R N N I G R A L D A T E I L G F L H S C L N P I I Y A F I G Q N F R

NcoI (1500)
NsiI (1525)
1501 CCATGGATTCTCAAGATCTGGCTATGCATGGCTGGTCAAGGAGTTCTTGGCAGTGCATCGTGTACCTCCTACACTTCTTCTGCTGCAATGTC
313▶ H G F L K I L A M H G L V S K E F L A R H R V T S Y T S S S V N V

MscI (1629)
NheI (1623)
1601 TCTTCAACCTCTGAAAACCATCGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAACCACAAGTAACTAGAAATGCAAGTAAAAATGCTT
347▶ S S N L •

HpaI (1761)
MfeI (1772)
1701 TATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAAGTTAAACAACAACAATTGCATTTTATGTTTCAGGTT

EcoRI (1857)
1801 CAGGGGGAGGTGGGAGGTTTTTAAAGCAAGTAAAACCTCTACAAATGTGGTATGAATTTAAAATACAGCATAGCAAACTTTAACCTCCAAATCA
1901 AGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGACGCCTCACCTTCTTTCATG

SapI (2039)
SspI (2096)
2001 GAGTTTAAGATATAGTGTATTTTCCAAGGTTTGAAGTCTCTTCAATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTATGAAAAATA

SwaI (2110)
2101 TTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGT
2201 AGTTGGACTTAGGGAACAAAGAACCTTAAATAGAAATTTGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTCTGGTACTTGAGGGGGATGAGTTCC
141▶ • N R T Y K L P I L E

SacI (2371)
2301 TCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGCAGTCAAGGAGCATAGTCAAGATGAGCTCTCTGCACATGCCACAGGGGCTGA
129▶ 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 C M G C P S V
BstXI (2400)
2401 CCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGC
96▶ 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 S V A S G I A

2501 AATGGCTTCAGCACAGACAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAAGTCTTGGTCTGATGGCCGCCCGACATGG
63 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 I A A G V H
StuI (2535) BbsI (2681)
2601 TGCTTGTTGTCCTCATAGAGCATGGTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTCTTCATGGTGGCCCTCC
29 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 T K M
XmnI (2677) AseI (2743)
2701 TATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCCTAAAC
SacI (2800) SpeI (2898)
2801 GAGCTCTGCTTATATAGACCTCCCACCGTACACGCCTACCGCCATTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCCTTGATTTAC
2901 TAGTCAAACAAACTCCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTAAGTCCAAAACCGC
SnaBI (3026)
3001 ATCATCATGGTAATAGCGATGACTAATACGTAGATGTAAGTCCCAAGTAGGAAAGTCCATAAGGTCATGTAAGTGGGCATAATGCCAGGGGGCCATTAC
NdeI (3131)
3101 CGTCATTGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGTACTGCAAGTGGGCGAGTTTACCGTAAATACTCCACCCATTGACGTCAATG
3201 GAAAGTCCCTATTGGCGTACTATGGGAACATACGTCAATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGAGCCAGGGGGCCATTACCGTAAGT
PacI (3317)
3301 TATGTAACGCCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCT
PstI (3310) SdaI (3309) BspLU11I (3327)
3401 CCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCC
3501 CTCGTGGCTCTCCTGTTCCGACCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGT
ApaLI (3641)
3601 ATCTCAGTTCGGTGTAGGTCGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGA
3701 GTCCAACCCGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGTACAGAGTTCTTGAAG
3801 TGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCG
3901 GCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTCTAC
PacI (4057) SmaI (4066) NotI (4076)
4001 GGGGCTGACGCTCAGTGAACGAAAACACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGCCGCAATAAAATATCTTTAT
4101 TTTCATTACATCTGTGTGGTTTTTTGTTGTAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAAATAGGCTGT
4201 CCCAGTGCAGGTGCCAGAACATTTCTCTATCGAA