

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

1 GGATCTGGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTCGGCAATTGAACGGGTGCCTA
 101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGACTGGTCCGCCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCGCCCGCCGCTACCTGAGGGCC
 301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTCCTGACCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

KasI (535)
AgeI (552) **BamHI (583)**

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGCGCCTACCTGAGATCACCGGTAGGAGGCCATCATGAACAACAGTGGATCCTCCACGCTGCG
1 M N N R W I L H A A

PvuII (699)

601 TTCCTGCTGTGCTTCTCCACCACAGCCCTCTCCATCAACTATAAGCAGCTCCAGCTCCAAGAAAGGACGAACATTCGAAATGTCAGGAGCTCCTGGAGC
 11▶ F L L C F S T T A L S I N Y K Q L Q L Q E R T N I R K C Q E L L E
 701 AGCTGAATGGAAAGATCAACCTCACCTACAGGGCGGACTTCAAGATCCCTATGGAGATGACGGAGAAGATGCAGAAGAGTTACACTGCCTTTGCCATCCA
 44▶ Q L N G K I N L T Y R A D F K I P M E M T E K M Q K S Y T A F A I Q

DraIII (848)

801 AGAGATGCTCCAGAATGTCTTTCTTGTCTTCAGAAACAATTTCTCCAGCACTGGTGGAAATGAGACTATTGTTGTACGTCCTCGGATGAACTCCACCAG
 77▶ E M L Q N V F L V F R N N F S S T G W N E T I V V R L L D E L H Q

ScaI (920)

901 CAGACAGTGTTCCTGAAGACAGTACTAGAGGAAAAGCAAGAGGAAAGATTGACGTGGGAGATGTCTCAACTGCCTCCACTGAAAGAGCTATTACTGGA
 111▶ Q T V F L K T V L E E K Q E E R L T W E M S S T A L H L K S Y Y W

Acc65I (1009)
BglIII (1063) **BstBI (1087)**

1001 GGGTGCAAAGGTACCTTAAACTCATGAAGTACAACAGCTACGCCTGGATGGTGGTCCGAGCAGAGATCTTCAGGAACCTTCTCATCATTCCGAAGACTTAC
 144▶ R V Q R Y L K L M K Y N S Y A W M V V R A E I F R N F L I I R R L T

MscI (1126)
NheI (1120)

1101 CAGAAACTTCCAAAAGTGAAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGACAAACCACAACACTAGAATGCAGTGAAAAAATGCTTTAT
 177▶ R N F Q N •

HpaI (1258) **MfeI (1269)**

1201 TTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAAACAAGTTAAACAACAACATTCATTTCATTTATGTTTCAGGTTCCAG

EcoRI (1354)

1301 GGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTTAACCTCAAATCAAGC
 1401 CTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAG

SspI (1593)

1501 TTTAAGATATAGTGATTTTTCCCAAGGTTGAACTAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTTAGTAAATATTC

SwaI (1607)
EcoO109I (1668)

1601 AGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGT
 1701 TGGACTTAGGGAACAAAGGAACCTTAAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTCTGGTGTACTTGAGGGGATGAGTTCCTCA
141▶ • N R T Y K L P I L E E

BstXI (1897)

1801 ATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCA
 128▶ 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 V
 1901 CCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCGTTGCTCACAGCAGACCCAATGGCAAT
 95▶ 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 I

StuI (2032)

2001 GGCTTACGACAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCACTTGGTCTGATGGCCGCCGACATGGTGC
 62▶ 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 H

XmnI (2174)

2101 TTGTTGCTCATAGAGCATGGTATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCTGCTGAGAGATGTTGAAGTCTTCATGATGGCCCTCTAT
 28▶ 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

AseI (2240)

2201 AGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTATCTGACGGTTCACTAAACGAG

SpeI (2395)

2301 CTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAG

2401 TCAAAACAAACTCCCATGACGTCATGGGGTGGAGACTTGGAAATCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTAAGTCCAAAACCGCATC

SnaBI (2523)

2501 ATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGCATAATGCCAGGCGGGCCATTTACCGT

NdeI (2628)

2601 CATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAA

2701 AGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGCGGGGGTCTGTTGGCGGTTCAGCCAGGCGGGCCATTTACCGTAAGTTAT

PstI (2807)

SdaI (2806) **PacI (2814)** **BspLU11I (2824)**

2801 GTAACGCTGCAGGTTAA TTAAGAACATGTGAGCAAAAGGCCAGAAACCGTAAAAAGCCGCGTTGCTGGCGTTTTTCCATAGGCTC

2899 CGCCCCCTGACGAGCATCAAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCC

2999 TCGTGGCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCCTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTA

ApaLI (3138)

3099 TCTCAGTTCGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCCTGCGCCTTATCCGGTAACTATCGTCTTGAG

3199 TCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGT

3299 GGTGGCCTAACTACGGCTACACTAGAAGACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGG

3399 CAAACAAACCACCGCTGGTAGCGGTGGTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACG

EagI (3574)

PacI (3554) **SwaI (3563)** **NotI (3573)**

3499 GGGTCTGACGCTCAGTGGAACGAAAACCTCACGTTAAGGGATTTTGGTTCATGGCTAGTTAATTAACATTTAAATCAGCGCCGCAATAAAATATCTTTATT

3599 TTCATTACATCTGTGTGTTGGTTTTTTGTTGTAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTC

3699 CCCAGTGAAGTGCAGGTGCCAGAACATTTCTCTATCGAA