



PvuI (7)
SgfI (6) **MfeI (82)**
1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245)
Psp1406I (203) **PvuII (239)** **Bsu36I (291)**
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACACGGCCCGCCGCCCTACCTGAGGCC
301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCGCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

KasI (535) **NcoI (560)**
BstEII (555)
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTACCATTGGTCTCACCTCCAACTGCTTCCCCCTCTGTTCTT
1▶ M G L T S Q L L P P L F F

NheI (603) **NgoMIV (613)** **EcoRV (643)** **BbsI (693)**
601 CCTGCTAGCATGTGCCGGCAACTTTGTCCACGGACACAAGTGCATATCACCTTACAGGAGATCATCAAACTTTGAACAGCCTCACAGAGCAGAAGACT
13▶ L L A C A G N F V H G H K C D I T L Q E I I K T L N S L T E Q K T
ApaLI (702) **PstI (768)**
701 CTGTGCACCGAGTTGACCGTAACAGACATCTTTGTGCCTCCAAGAACAACACTGAGAAGGAACTTCTGCAGGGCTGCGACTGTGCTCCGGCAGTTCT
47▶ L C T E L T V T D I F A A S K N T T E K E T F C R A A T V L R Q F

PvuII (865)
801 ACAGCCACCATGAGAAGGACACTCGCTGCTGGGTGCGACTGCACAGCAGTTCACAGGCACAAGCAGCTGATCCGATTCTGAAACGGCTCGACAGGAA
80▶ Y S H H E K D T R C L G A T A Q Q F H R H K Q L I R F L K R L D R N
EcoO109I (905) **EcoRI (921)** **BspHI [m] (987)**
901 CCTCTGGGCGCTGGCGGGCTTGAATTCCTGTCTGTGAAGGAAGCCAACAGAGTACGTTGGAAAACCTTCTTGGAAAGGCTAAAGACGATCATGAGAGAG
113▶ L W G L A G L N S C P V K E A N Q S T L E N F L E R L K T I M R E

SspI (1001) **AvrII (1024)** **PshAI (1022)** **MscI (1036)**
1001 AAATATTCAAAGTGTTCGAGCTGACCTAGGCTAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGACAAACCACAAC TAGAATGCAGTGAAAAA
147▶ K Y S K C S S •

HpaI (1168) **MfeI (1179)**
1101 AATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAACATTGCATTCTTTATGTT

EcoRI (1264)
1201 TCAGGTTACAGGGGAGGTGTGGGAGTTTTTTAAAGCAAGTAAAACCTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTTAACCTC
1301 CAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTC
1401 TTTTATGGAGTTTAAAGATATAGTGTATTTTCCCAAGTGTGAACTAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTATG

SspI (1503) **SwaI (1517)** **EcoO109I (1578)**
1501 TAAAAATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCCA
1601 GTTTAGTAGTTGGACTTAGGGAACAAGGAACCTTAAATAGAATTTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGAGGGGGAT
141▶ • N R T Y K L P I

BstXI (1807) **SacI (1778)**
1701 GAGTTCCTCAATGGTGGTTTTGACCAGCTTCCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGCACATGCCACAG
132▶ 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 C M G C
BstXI (1807)
1801 GGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTCCGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACC
98▶ 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 S V A S G
StuI (1942)
1901 CAATGGCAATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGCTCAATGTGGACAGCAGAGATGATCTCCCGCTTGTGCTGATGGCCGCCCC
65▶ 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 I A A G
BspHI (2092)
BbsI (2088)
XmnI (2084)
2001 GACATGGTCTTGTGTCCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTCTTCATGATG
32▶ 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 T K M ◀

AseI (2150)
2101 GCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTATCTGACGGTT

SacI (2207)
2200 CACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTGGAAAGTCCCGT

SpeI (2305)
2300 TGATTTACTAGTCAAAAACAACTCCCATGACGTCAATGGGGTGGAGACTTGAAAATCCCCGTGAGTCAAACCGCTATCCACGCCCATTTGATGTAAGTGC

2399 CAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGG
SnaBI (2433)

2499 GCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTG
NdeI (2538)

2599 ACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTCAGCCAGGCGGGCCATTT

2699 ACCGTAAGTTATGTAACGCCCTG C A G G T T A A T T A A G A A C A T G T G A G C A A A A G G C C A G A A A A G G C C A G G A A C C G T A A A A A G G C C G C T T G C T G G C G T T T
PstI (2717) SdaI (2716) PacI (2724) BspLU11I (2734)

2797 TTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCC
←

2897 CTGGAAGCTCCCTCGTGCCTCTCTGTCCGACCCTGCCGTTACCGGATACCTGTCCGCCTTCTCCCTTCGGAAGCGTGGCGCTTCTCATAGCTC

2997 ACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCCAGCCGACCGCTGCGCCTTATCCGGTAAC
ApaLI (3048)

3097 TATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGTAACAGGATTAGCAGAGCGAGGTATGTAGCGGTGCTACAG

3197 AGTTCCTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAG

3297 CTCTTGATCCGGCAAACAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTG

3397 ATCTTTTCTACGGGGTCTGACGCTCAGTGGAAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGCAATAA
PacI (3464) SwaI (3473) EagI (3484) NotI (3483)

3497 AATATCTTTATTTTACATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAAACAAAACGAAAACAAAACAACTAGCA

3597 AAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTATCGAA