



PvuI (7)
SgfI (6) 1 GGATCTGCATCGCTCCGGTGCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
MfeI (82)
101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTATGCTGTACTGGCTCCGCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245)
Psp1406I (203) 201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTCACGCGCCGCCCTACCTGAGGCC
PvuII (239)
Bsu36I (291) 301 GCCATCCACGCCGGTTGAGTCGCGTTTCTGCCGCTCCCGCTGTGGTGCTCCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

ApaLI (567)
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTCATCATGAAGTGCACCCGTGAAACAGCCATGGTCAAGTCTTT
AgeI (552) **BspHI (560)** **NcoI (584)**
601 GCTACTGTTGATGTTGGGACTTGCCATTCTGAGGGAGGTAGCAGCTCGGAAGAACCCAAAGCAGGGGTTCTGCCTTGACAGAAAGCTGGAACTGTCCT
13▶ L L L M L G L A I L R E V A A R K N P K A G V P A L Q K A G N C P
1▶ M K C T R E T A M V K S L

EcoRI (772) 701 CCCTGGAGGATAAACTGTGAGAGTTGACATTCTCAACCAAACAGGGCATTCTGTCCACGTGAATCCAGAACCCTCAGTTCCCCAT
BstBI (731) **BbrPI (767)** **BsrBI (783)** **NcoI (796)**
47▶ P L E D N T V R V D I R I F N Q N Q G I S V P R E F Q N R S S S P

XhoI (815) 801 GGGATTACAACATCACTCGAGACCCCAACCGGTTCCCTCAGAGATCGCTGAGGCCAGTGCAGACACTCAGGCTGCATCAATGCCAGGGTCAGGAAGA
AgeI (827) **BbsI (895)**
80▶ W D Y N I T R D P H R F P S E I A E A Q C R H S G C I N A Q G Q E D
901 CAGCACCATGAACTCCGTCGCCATTAGCAAGAAATCTGGTCTTCGAGGGAGCCAGGGCTGTCTAATTCCTCAGGTTGGAGAAGATGCTCCTA
113▶ S T M N S V A I Q Q E I L V L R R E P Q G C S N S F R L E K M L L

MscI (1075) 1001 AAAGTTGGCTGCACCTGTGTCAAACCATTGTCCACCAAGCGGCTGACAACGCTGCATACAAAATCAGCTAGCTGGCCAGACATGATAAGATACATTG
NheI (1069)
147▶ K V G C T C V K P I V H Q A A •

1101 ATGAGTTTGGACAAACCACTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAA

HpaI (1207) **MfeI (1218)** 1201 TAAACAAGTTAAACAACAATTGCATTCATTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGT

EcoRI (1303) 1301 ATGGAATCTAAAATACAGCATAGCAAACTTAACTCCAATCAAGCCTCTACTTGAATCCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGC

SapI (1485) 1401 TGTGCCAATGTGCATTAGCTGTTTGACGCTCACCTCTTTTCATGGAGTTTAAAGATATAGTGTATTTCCCAAGGTTTGAAGCTCTTCTTTCTTT

SspI (1542) **SwaI (1556)** 1501 ATGTTTTAAATGCACTGACCTCCACATTCCCTTTTGTAGTAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGG

EcoO109I (1617) 1601 CAGAATCCAGATGCTCAAGGCCCTTATAATATCCCCAGTTTAGTAGTTGACTTAGGGAACAAAGGAACCTTAAAGAAATTGGACAGCAAGAAAGC

1701 GAGCTTCTAGCTTTAGTTCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCTCAATGAGCACAAAGCAGTCA
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

SacI (1817) **BstXI (1846)** 1801 GGAGCATAGTCAGAGATGAGCTCTGCACATGCCACAGGGGTGACCACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAA
111▶ P A Y D 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

StuI (1981) 1901 TGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGACAGC
78▶ T D F D 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
2001 AGAGATGATCTCCCAGTCTGGTCTGATGGCCGCCGACATGGTCTTGTGCTCATAGAGCATGGTATCTTCTCAGTGGCGACCTCCACCAGC
45▶ S I I E 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

BbsI (2127) 2101 TCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGCTGGCCCTCTATAGTGTGATTACTATGCGGATATACTATGCCGATGATTAATTGTCA
XmnI (2123) **AseI (2189)**
11▶ E L D Q Q S I N F T K M

SacI (2246) 2201 AAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCA

2301 ATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCG
SpeI (2344)

2401 TGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAG
SnaBI (2472)

2501 TCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGATGTACTG
NdeI (2577)

2601 CCAAGTGGGCAGTTTACCCTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCAATTATTGACGTCAATGG
PacI (2763)

2701 GCGGGGGTCGTTGGGCGGTCAGCCAGGCGGGCCATTTACCCTAAGTTATGTAACGCCTGCAGGTTAATAAGAACATGTGAGCAAAAGGCCAGCAAAAGG
PstI (2756)
SdaI (2755) BspLU11I (2773)

2801 CCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAA
BspLU11I (2773)

2901 CCCGACAGGACTATAAAGATACCAGGCGTTTTCCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCTTT
ApaLI (3087)

3001 CTCCCTTCGGAAGCGTGGCGCTTTTCCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCAAGCTGGGCTGTGTGCACGAACCCC
ApaLI (3087)

3101 CCGTTCAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAG
ApaLI (3087)

3201 GATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTG
ApaLI (3087)

3301 CTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGTTTTTTTGTGTTGCAAGCAGCAGATTA
ApaLI (3087)

3401 CGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGC
ApaLI (3087)

3501 TAGTTAATTAACATTTAAATCAGCGGCCCAATAAAAATATCTTTATTTTATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTC
EagI (3523)
PacI (3503) SmaI (3512) NotI (3522)

3601 TCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCGAGTCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA
EagI (3523)