



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

1 GGATCTGGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCCCTACCTGAGGGCC
 301 GCCATCCACGCGGTTGAGTCGCGTTCGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441) **NaeI (441)**

401 GGGCCTTTGTCGGCGCTCCCTTGAGGCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTCTCAACTCTACGCTTTTGTTCGTTT

KasI (535) **AgeI (552)** **SphI (560)**

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCCCTACCTGAGATCACCGGTGAGCATGCTGAGCATTCTGATTCTAGCTGCTACAGCCGAGG
1▶ M L S I L I L A A T A A G

Bsp120I (640) **EcoO109I (640)** **BamHI (691)**

601 GCTAGTGATCTTGTCTATTCCAGCGACTATGGACCGTGTGGGCCCATCACGTCACTCCCGAGAGTCTCTCAGACTTTGATCGTGGCTGGATCCGGT
13▶ L V I L L F Q R L W T V L G P H H V T P R E S L R L L I V A G S G

BglIII (713) **HindIII (732)**

701 GGACACACCACTGAGATCTTGAGGCTGGTTGGAAGCTTGCCAAATGCCTATTACCAAGGCATTATGTCATTGCTGAGTCTGATGAAATGAGTCCAAGA
47▶ G H T T E I L R L V G S L S N A Y S P R H Y V I A E S D E M S A K

XhoI (824) **EcoRI (875)**

801 AAATCCATTCTCTGAAGAAGTCTCTCGAGCCAGAATGACTCTACTACTGAATACCCCAAGTACCACCTTCACCGAATTCGAGAAGCCGGGAGGTTCC
80▶ K I H S L E E L S R A Q N D S T T E Y P K Y H L H R I P R S R E V R

901 GCAGTCTGGCTCTCCTCTGTGTTCACTACCTTACTCCATGTGGTTCCTTCCACTGGTTCCTCGAATAAAGCCAGATTTGGTGTGTGAATGGA
113▶ Q S W L S S V F T T F Y S M W F S F P L V L R I K P D L V L C N G

1001 CCAGGAACATGCGTCCCTATCTGTGTGTCGCGCCCTGCTTCTGGGATACTGGAGTGAAGAAAGTGATCATCGTCTATGTCGAGAGCATCTGCCGAGTGG
147▶ P G T C V P I C V S A L L L G I L G V K K V I I V Y V E S I C R V

Bsu36I (1125)

1101 AGACGCTATCCCTGTCAGGGAAGATCCTGAGGCACCTCTCCGACTACTTCATTGTTTCAGTGGCCACTCTCAAGGAGAAGTACCCCAAGTCTGTGTACCT
180▶ E T L S L S G K I L R H L S D Y F I V Q W P T L K E K Y P K S V Y L

MscI (1245) **NheI (1239)**

1201 GGGCGAATTGTTTGACAAATGGCAACCCTAAGTCTTGAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGC
213▶ G R I V •

HpaI (1377) **MfeI (1388)**

1301 AGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAAACAATTGCATTCA

EcoRI (1473)

1401 TTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAAC
▶

1501 TTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGC

1601 CTCACCTTCTTTCATGGAGTTTAAAGATATAGTGTATTTTCCCAAGTTTGAAGTACTCTTCATTCTTTATGTTTTAAATGCACTGACCTCCACATTC

SspI (1712) **SwaI (1726)** **EcoO109I (1787)**

1701 CCTTTTTAGTAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAA
 1801 TATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTAAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGACTT
141▶ • N R T Y K

SacI (1987)

1901 GAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCGAC
135▶ 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 C

BstXI (2016)

2001 ATGCCACAGGGGCTGACCACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCA
101▶ 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 S V

StuI (2151)

2101 CAGCAGCCCAATGGCAATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAGTCTTGGTCTGAT
68▶ 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 I

BbsI (2297) **XmnI (2293)**

2201 GGCCGCCCGACATGGTGTGTTGTCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTC
35▶ 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 T

BspHI (2301) **AseI (2359)**

2301 TTCATGATGGCCCTCTATAGTGTGCTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTATC
1▶ K M

SacI (2416)

2401 TGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAA

2501 AGTCCCGTTGATTTACTAGTCAAAACAAACTCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGA
SpeI (2514)

2600 TGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATG
SnaBI (2642)

2700 CCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCC
NdeI (2747)

2800 ACCATTGACGTCAATGGAAAGTCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGCGGTCAGCCAGGCG

2900 GGCCATTTACCGTAAGTTATGTAACGCCTGCAGGTTAA TTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGC
PstI (2926) SdaI (2925) PacI (2933) BspLU11I (2943)

2998 TGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCAGAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGTACCAGGC

3098 GTTCCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCT

3198 CATAGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCGCTGCGCCTTAT
ApaLI (3257)

3298 CCGGTAACATATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGG

3398 TGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGA

3498 GTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAG

3598 ATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAACGAAACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGC
PacI (3673) SmaI (3682) EagI (3693) NotI (3692)

3698 CGCAATAAAATATCTTTATTTTTCATTACATCTGTGTGGTTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACA

3798 AACTAGCAAAATAGGCTGTCCCCAGTGAAGTGCAGGTGCCAGAACATTTCTCTATCGAA