



PvuI (7)
SgfI (6) MfeI (82) EcoNI (96)
1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245) **Bsu36I (291)**
Psp1406I (203) **PvuII (239)** EcoNI (287)
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCCTTACAGCGCCCGCCGCTACCTGAGGCC
301 GCCATCCACGCGGTTGAGTCGCGTTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGTCTTTGTTTCGTTT

BstEII (555) **SmaI (584)**
AgeI (552) **NcoI (560)** **EcoO109I (584)** **XmaI (581)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCAGTACCACCTGGAGACCCCTGCCTGGCCCGGGTCCCGGCCCGGA
1 M E T P A W P R V P R P E

PshAI (600) **NgoMIV (649)**
601 GACCGCGCTGCTCGGACGCTCCTGCTCGGCTGGGTCTTCGCCAGGTGGCCGGCGCTTCAGGCACTACAATACTGTGGCAGCATATAATTTAACTTGG
13▶ T A V A R T L L L G W V F A Q V A G A S G T T N T V A A Y N L T W
701 AAATCAACTAATTTCAAGACAATTTGGAGTGGGAACCCAAACCGTCAATCAAGTCTACACTGTTCAAATAAGCACTAAGTCAGGAGATTGAAAAGCA
47▶ K S T N F K T I L E W E P K P V N Q V Y T V Q I S T K S G D W K S

DraIII (819)
801 AATGCTTTTACACAACAGACACAGAGTGTGACCTACCAGCAGAGATTGTGAAGGATGTGAAGCAGACGTAAGTGGCAGGGTCTTCTCCTACCCGGCAGG
80▶ K C F Y T T D T E C D L T D E I V K D V K Q T Y L A R V F S Y P A G

AgeI (913)
901 GAATGTGGAGAGCACCGGTTCTGCTGGGAGCCCTGTATGAGAACTCCCGAGAGTTCACACCTTACCTGGAGACAAACCTCGGACAGCCAACAATTCAG
113▶ N V E S T G S A G E P L Y E N S P E F T P Y L E T N L G Q P T I Q

PshAI (1050)
1001 AGTTTTGAACAGGTGGGAACAAAAGTGAATGTGACCGTAGAAGATGAACGGACTTTAGTCAAGAAACAACTTTCTAAGCCTCCGGGATGTTTTTG
147▶ S F E Q V G T K V N V T V E D E R T L V R R N N T F L S L R D V F

SspI (1154)
1101 GCAAGGACTTAATTTATACACTTTATTATTGGAATCTTCAAGTTCAGGAAAGAAATATTCTACATCATTGGAGCTGTGGTATTTGTGGTCATCATCCTT
180▶ G K D L I Y T L Y Y W K S S S S G K K Y S T S L E L W Y L W S S S L

MscI (1290) **NheI (1284)**
1201 GTCATCATCTGGCTATATCTCTACACAAGTGTAGAAAGCAGGAGTGGGGCAGAGCTGGAAGGAGAAGTCCCACTGAATGTTGCTAGCTGGCCAGACA
213▶ S S S W L Y L Y T S V E R Q E W G R A G R R T P H •
1301 TGATAAGATACATTGATGAGTTTGACAAAACCAACTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAAC

HpaI (1422) MfeI (1433)
1401 CATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGCATTCAATTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAAC

EcoRI (1518)
1501 CTCTACAAATGTGGTATGGAATTTCTAAAATACAGCATAGCAAACTTTAACTCCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGC
1601 ATAGGCATCAGGGGCTGTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTCATGGAGTTAAGATATAGTGTATTTTCCAAGGTTTGAAC

SapI (1700) **SspI (1757)** **SwaI (1771)**
1701 GCTCTTCAATTTCTTTATGTTTTAAATGCACTGACCTCCACATCCCTTTTGTAGTAAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAA

EcoO109I (1832)
1801 ATGTTTTTTATTAGGAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATT
1901 GGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGCTGTAAGTGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCTCATCTCAATG
141▶ N R T Y K L P I L E E I T T K V L K G N M E I

SacI (2032) **BstXI (2061)**
2001 AGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGTCACATGCCACAGGGGCTGACCACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGT
116▶ L V F C D 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

StuI (2196)
2101 GCCTGACAGCCCAATGGTGTCAAAGTCTTCTGCCCCTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGC
83▶ R V A V I 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
2201 CTCAATGTGGACAGCAGAGATGATCTCCCGAGTCTGGTCTGATGGCCGCCGACATGGTGTCTGTTGCTCATAGAGCATGGTGTCTTCTCAGTG
50▶ E I H V A 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

XmnI (2338)
2301 GCGACCTCCACAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGGTGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCC
16▶ A V E V L E L D Q Q S I N F T K M

AseI (2404) **SacI (2461)**
2401 GATGATTAATGTCAAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTAC

2501 CGCCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCCATTGACGTCAATGGGGTGGAG
SpeI (2559)

 2601 ACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTAC
SnaBI (2687)

 2701 TGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGAT
NdeI (2792)

 2801 ACACCTTGATGACTGCCAAGTGGGCAGTTTACCCTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCA

PacI (2978)
PstI (2971)
SdaI (2970)
BspLU11I (2988)
 2901 TATTGACGTCAATGGGCGGGGTCGTTGGGCGGTCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCCTGCAGGTTAATTAAGAACATGTGAGCAA

 3001 AAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAG

 3101 TCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCTGCCGCTTACCGGA

 3201 TACCTGTCCGCCTTTCTCCCTTCGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCAAGCTGGGCT

ApaLI (3302)
 3301 GTGTGCACGAACCCCGTTTCCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGC

 3401 AGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTT

 3501 GGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGA AAAAGAGTTGGTAGCTCTTGATCCGGCAAAACAAACCACCGCTGGTAGCGGTGGTTTTTTGTTT

 3601 GCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAAACGAAAACCTCACGTTAAGG

EagI (3738)
PacI (3718) SwaI (3727) NotI (3737)
 3701 GATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCCAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGGTTTTTTGTGTAATCGT

 3801 AACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCG
 3901 AA