



PvuI (7)
SgfI (6) MfeI (82) EcoNI (96)
1 GGATCTGCGATCGTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGTCCGCCTTTTCCGAGGGTGGGGGAGAACCGTATATAAGTGCAGTAGTCGCC

HindIII (245) Bsu36I (291)
PvuII (239) EcoNI (287)
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCGCCGCCGCCCTACCTGAGGGCC
301 GCCATCCACGCGGTTGAGTGCAGTTCGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCGCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

KasI (535) **AgeI (552)** **SphI (560)** Bsu36I (565) **BstEII (596)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGGCTACCTGAGATCACCGGTGAGCATGCCTAAGGAGCAGCAAGAGGTGGTGTACTGGGGTCT
1▶ M P K E Q Q E V V V L G S

BglIII (647) **BspHI (695)**
601 ACCCACATCTCAACTTCTGCGACAGCCACCACAATCAACATGCCTGAGATCTCCACGCTGACCATGTGGTCTGGTCCCTGTCAATACACTCTTCATG
13▶ P H I S T S A T A T T I N M P E I S T P D H V V W S L F N T L F M

StuI (785) **Bsp120I (779)** EcoO109I (778)
701 AACCTTCTGCTGCCTGGGCTTCGTAGCCTATGCCTACTCCGTGAAGTCTAGGGACAGGAAGATGGTGGTGATACGACTGGGGCCAGGCTTCGCCCTCA
47▶ N F C C L G F V A Y A Y S V K S R D R K M V G D T T G A Q A F A S

NheI (899)
801 CCGCAAGTGCCTGAACATCAGCTCCCTGTTCTTACCATCCTCACGGCCATCGTCGTCATCGTTGTCTGTGCCATTAGATGATGTGAGATGTCTTGACG
80▶ T A K C L N I S S L F F T I L T A I V V I V V C A I R •

MscI (905)
901 CTAGCTGGCCAGACATGATAAGATACATTGATGAGTTGGACAAACCACAAGTGAATGCAGTAAAAAATGCTTTATTTGTGAAATTTGTGATGCTAT

HpaI (1037) MfeI (1048)
1001 TGCTTTATTTGTAACATTATAAGCTGCAATAAACAAGTTAAACAACAATTGCATTCATTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTT

EcoRI (1133)
1101 TAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTTAACTCCAAATCAAGCCTCTACTTGAATCCTTTTCTG
1201 AGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTTAAGATATAGTGTATTTTC

SapI (1315) **SspI (1372)** SmaI (1386)
1301 CCAAGGTTTGAAGTACGCTCTTCAATTTCTTATGTTTAAATGCAGTACCTCCACATTCCTTTTGTAGTAAATATTCAGAAATAATTTAAATACATCA

EcoO109I (1447)
1401 TTGCAATGAAATAAATGTTTTTATTAGGCAGAAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAA
1501 CCTTTAATAGAAATTTGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGTTGACTTGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTG
141▶ • N R T Y K L P I L E E I T T K V L K

SacI (1647) **BstXI (1676)**
1601 CCATTCATCTCAATGAGCACAAGCAGTCCAGGAGCATAGTGCAGATGAGCTCTGTCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCT
121▶ 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 R I S R D V E
1701 CATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGCTCTTCCGCTTGTCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTGC
88▶ 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 A E A C V T V

StuI (1811)
1801 CCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAGTCTTGGTCTGATGGCCGCCCGACATGGTCTTGTGCTCATAGAGCATG
55▶ 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 K N D E Y L M

BbsI (1957) **XmnI (1953)**
1901 GTGATCTTCTCAGTGGCGACCTCCACCAGTCCAGATCCTGCTGAGAGATGTTGAAGTCTTTCATGGTGGCCCTCTATAGTGAAGTCTATTACTATG
21▶ T I K E T A V E V L E L D Q Q S I N F T K M

AseI (2019) **SacI (2076)**
2001 CCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTACTAAACGAGCTCTGCTTATATAGACCTCCC

SpeI (2174)
2101 ACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCCATTGAC
2201 GTCAATGGGGTGGAGACTTGGAAATCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTAAGTCCAAAACCGCATCATCATGGTAATAGCGATGACT

SnaBI (2302)
2301 AATACGTAGATGTAAGTCCCAAGTAGAAAGTCCCAATAAGTGCATGTAAGTGGGCATAATGCCAGCGGGCCATTTACCGTATTGACGTAATAGGGGGCG

NdeI (2407)
2401 TACTTGGCATATGATACACTTGTACTGCCAAGTGGGAGTTTACCGTAAATACTCCACCCATTGACGTAATGAAAGTCCCTATTGGCGTTACTAT

PacI (2593)

PstI (2586)

SdaI (2585)

2501 GGG AACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGT CAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATTA

BspLU11I (2603)

2601 AGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAA



2701 AAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACC

2801 CTGCCGCTTACCGGATACCTGTCCGCCTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTT

ApaLI (2917)

2901 GCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTT CAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTT

3001 ATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACT

3101 AGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGA AAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCCTGGTAGCG

3201 GTGGTTTTTTTGTGTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGAACGA

EagI (3353)

PacI (3333) SmaI (3342) NotI (3352)

3301 AACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCCAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGGTT

3401 TTTTGTGTAATCGTAACATAACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGAAGTGCAGGTGCCAG

3501 AACATTTCTATCGAA