



PvuI (7)
SgfI (6) **MfeI (82)**
1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGTGCTGTACTGGCTCCGCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCTGCTTGTCTCAACTCTACGCTTTGTTTCGTTT

BstEII (555)
AgeI (552) **NcoI (560)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTACCCATGGCTTCAGAAATCACTTATGCAGAAGTGAAGTTCAA
1 ▶ M A S E I T Y A E V K F K

PstI (638)
601 GAATGAATCCAACCTCTTGACACCTACTCAGAATCTCCTGCAGCTCCAGAGAGAAAACCTATCCGTGATCTAAGAAAGCCTGGTTCCTCCCTCACTGCTT
13▶ N E S N S L H T Y S E S P A A P R E K P I R D L R K P G S P S L L

ScaI (773)
701 CTTACATCCCTGATGCTACTTCTCCTGTGCTGGCAATCACATTCTTAGTGTCTTTATCATTATTTTCAAAAAGTACTCTCAACTTCTTGAAGAAAAA
47▶ L T S L M L L L L L L A I T F L V A F I I Y F Q K Y S Q L L E E K

NcoI (854) **Tth111I (862)** **BstXI (883)**
801 AAGCTGCAAAAAATATAATGCACAATGAATTGAACTGCACAAAAAGTGTTCACCCATGGAAGACAAAGTCTGGAGCTGTTGCCAAAAGGATTGGAGGCT
80▶ K A A K N I M H N E L N C T K S V S P M E D K V W S C C P K D W R L
901 ATTTGGTCCCACTGCTACTTGGTCCACAGTTTCTTCATCAGCATCTTGAACAAGAGTGAAGGAGAAGTCTCCCGCATGGGTGCTCATCTAGTGGTG
113▶ F G S H C Y L V P T V S S S A S W N K S E E N C S R M G A H L V V

SapI (1012)
1001 ATCCAAAGCCAGGAAGAGCAGGATTTCACTGCGGATCTTGGACACTCATGCTGCTTATTTTATAGGGTGTGGGATACAGGCCATCGGCAATGGCAAT
147▶ I Q S Q E E Q D F I T G I L D T H A A Y F I G L W D T G H R Q W Q

NdeI (1115)
1101 GGGTTGATCAGACCCATATGAAGAAAGTATCACATTCTGGCACAATGGTGAAGCCAGCAGTGGCAATGAAAAATGTGCTACAATAATTTACCGTTGGAA
180▶ W V D Q T P Y E E S I T F W H N G E P S S G N E K C A T I I Y R W K

EcoRV (1219)
1201 GACTGGATGGGCTGGAACGATATCTTTCAGTCTTAAACAGAAAGTCAAGTTTGTGAGATGAAGAAAAATAAATTATGAATCACTCATTCTTCATGGCA
213▶ T G W G W N D I S C S L K Q K S V C Q M K K I N L •

MscI (1316)
NheI (1310)
1301 TTCGATTCATGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAAT

HpaI (1448) **MfeI (1459)**
1401 TGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAGTTAAACAACAACATTGCATTCATTTTATGTTTCAGGTTCAAGGGGAGGTGT

EcoRI (1544)
1501 GGGAGGTTTTTTAAAGCAAGTAAACCTCTACAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGA
1601 ATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTCTTTTCATGGAGTTAAGATAT

SapI (1726) **SspI (1783)** **Swal (1797)**
1701 AGTGTATTTTCCAAGGTTTGAAGTACTGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTTAGTAAAATATTCAGAAATAAT

EcoO109I (1858)
1801 TAAATACATCATTGCAATGAAAAATAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGG
1901 GAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGAGGGGGATGAGTTCCTCAATGGTGGTTT
141 ▶ • N R T Y K L P I L E E I T T K

SacI (2058) **BstXI (2087)**
2001 TGACCAGCTTGCCATTCACTCAATGAGCACAAGCAGTCAAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCCTGATGGA
125▶ 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 P S V V R I S
2101 TCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCAGCAGACCCCAATGGCAATGGCTTCAGCA
92▶ 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 I A I A E A

StuI (2222)
2201 CAGACAGTGAACCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCACTGTTGGTCTGATGGCCGCCCGACATGGTGTGTTGTCCT
58▶ 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 V H H K N D E

2301 CATAGAGCATGGTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTCTTCATGGTGGCCCTCTATAGTGAGTCGT
25 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

XmnI (2364)

2401 ATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCCTAAACGAGCTCTGCTTAT
AseI (2430) SacI (2487)

2501 ATAGACCTCCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCCTTGATTTACTAGTCAAAACAAA
SpeI (2585)

2601 CTCCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAA

SnaBI (2713)

2701 TAGCGTAGCTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTC

NdeI (2818)

2801 AATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCATTGACGTCAATGGAAAGTCCCTATT

PstI (2997)
SdaI (2996)

2901 GCGTACTATGGGAACATACGTCAATTATTGACGTCAATGGGCGGGGTCGTTGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCCCTG

PacI (3004) BspLU11I (3014)

3001 CAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGAC

3101 GAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCGCTCTC

3201 CTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCCTTTCCCTTCGGGAAGCGTGGCGCTTTTCATAGCTCACGCTGTAGGTATCTCAGTTCGGT

ApaLI (3328)

3301 GTAGTTCGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTCCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTA

3401 AGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACT

3501 ACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGATTGGTAGCTCTTGATCCGGCAAACAAACCAC

3601 CGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTCTACGGGGTCTGACGCT

EagI (3764)

3701 CAGTGAACGAAAACCTACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGCAATAAAATATCTTTATTTTCATTACATCT
PacI (3744) SwaI (3753) NotI (3763)

3801 GTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAAACTAGCAAATAGGCTGTCCCCAGTGCAAGT

3901 GCAGGTGCCAGAACATTTCTCTATCGAA