



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

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203)
Bsu36I (291)

201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCCGCCGCCCTACCTGAGGCC
 301 GCCATCCACGCGGTTGAGTGCCTGTTGCGCCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

KasI (535)
SphI (560)

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTCAGCATGCTCCTCCTGCTGTTGCTCTGCTGCTGGCCGAGT
1▶ M L L L L L P L L L A A V

Tth111I (619)
XcmI (638)

601 GCTGACAAGAACCAAGCTGACCTGTCCCGAGGGCCACAGGCTCCAGTGGAAAGCAAGGATTGCCACATTGCTCAGTTCAAGTCTCTGTCCCAAAA
13▶ L T R T Q A D P V P R A T R L P V E A K D C H I A Q F K S L S P K
 701 GAGCTGCAGGCTTCAAAAAGGCAAGGTTGCCATCGAGAAGAGGCTGTTGAGAAGGACATGAGGTGCAGTTCACCTCATCTCCAGGCTGGGACC
47▶ E L Q A F K K A K G A I E K R L L E K D M R C S S H L I S R A W D

BstXI (896)

801 TGAAGCAGCTGCAGGTCCAAGAGCGCCCAAGGCTTGCAGGCTGAGGTGGCCCTGACCTGAAGTCTGGGAGAACATAAATGACTCAGCCCTGACCAC
80▶ L K Q L Q V Q E R P K A L Q A E V A L T L K V W E N I N D S A L T T

BsrGI (955)

901 CATCCTGGCCAGCCTTTCATACACTGAGCCACATTCCTCCAGCTGCAGACCTGTACACAGCTTCAGGCCACAGCAGAGCCCAAGCCCCGAGTCGC
113▶ I L G Q P L H T L S H I H S Q L Q T C T Q L Q A T A E P K P P S R

Tth111I (1066)

1001 CGCCTCTCCCGCTGGCTGCACAGGCTCCAGGAGGCCAGAGCAAGGAGACTCCTGGCTGCCTGGAGGACTCTGTCACCTCAACCTGTTTCAACTGCTCC
147▶ R L S R W L H R L Q E A Q S K E T P G C L E D S V T S N L F Q L L

MscI (1118)
NheI (1144)

1101 TCCGGACCTCAAGTGTGTGCCAGTGGAGACCAGTGTGTCTGAGCTAGTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAG
180▶ L R D L K C V A S G D Q C V •

HpaI (1282) **MfeI (1293)**

1201 AATGCAGTGAATAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAATTGC

EcoRI (1378)

1301 ATTCATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAATGTGGTATGGAATCTAAAATACAGCATAGC
▶

1401 AAAACTTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTT
◀

1501 GCAGCCTCACCTTCTTTCATGGAGTTTAAAGATATAGTGTATTTTCCCAAGGTTTGAAGTACTCTTCATTCTTTATGTTTTAAATGACTGACTGCCA

SspI (1617)
SwaI (1631)

1601 CATTCCCTTTTTAGTAAAATATTAGAAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAAATCCAGATGCTCAAGGCCCTT
 1701 CATAATATCCCCAGTTTAGTAGTTGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTGAGTTCCTGGTG
141▶ • N R T

SacI (1892)

1801 TACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTC
136▶ 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 P A Y D S I L E R

BstXI (1921)

1901 TGCACATGCCACAGGGGTCACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCGTT
103▶ 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 T D F D K Q G N
 2001 GCTCAGCAGACCCCAATGGCAATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAAGTCTGGTC
70▶ 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 S I I E G T K T

XmnI (2198)

2101 CTGATGGCCGCCGACATGGTGTCTTGTCTCATAGAGCATGGTGTCTTCTCAGTGGGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGA
36▶ 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 E L D Q Q S I N F

BspHI (2206)
AseI (2264)

2201 AGGCTTTCATGATGGCCCTCTATAGTGCCTGATTATACTATGCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGC
3▶ T K M ◀

SacI (2321)

2301 T TATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTT

SpeI (2419)

2401 TGGAAAGTCCCGTTGATTTACTAGTCAAAACAAACTCCATTGACGTCATGGGGTGGAGACTTGGAAATCCCCGTGAGTCAAACCGCTATCCACGCC

2500 **SnaBI (2547)**
ATTGATGTAAGTCCATAAGGTCATGTA

2600 **NdeI (2652)**
TAATGCCAGGCGGGCATTACC

2700 ACTCCACCCATTGACGCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGCAATGGGCGGGGTCGTTGGGCGGTCAGCC

2800 **SdaI (2830)****PacI (2838)** **BspLU11I (2848)**
AGGCGGGCCATTACC

2898 GTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATAC

2998 CAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCGCTCTCCTGTTCCGACCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGCGC

3098 **ApaLI (3162)**
TTTTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCGCTGCGC

3198 CTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTA

3298 GCGGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAA

3398 AAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCA

3498 **PacI (3578)** **SwaI (3587)**
AGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAAACGAAACTCACGTTAAGGGATTTTGTCATGGCTAGTTAATTAACATTAAATC A

EagI (3598)
NotI (3597)

3598 GCGGCCGCAATAAAATATCTTTATTTTATTACATCTGTGTGTGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAACGAAACA

3698 AACAACTAGCAAAATAGGCTGTCCCCAGTCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA