



100

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

1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203)
Bsu36I (291)

201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCCTTACCGCCGCCCGCCCTACCTGAGGCC
 301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
NgoMI (441)
NaeI (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCGTGACCCTGCTTGCTCAACTCTACGTCCTTTGTTTCGTTT

KasI (535)
AgeI (552)

501 TCTGTTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCCCTACCTGAGATCACCGGTCATCATGGCCAACAAAGCACCTTCTCAGATGGAGCGCAGCAT
1▶ M A N K A P S Q M E R S I

EcoRI (670)
XmnI (666)

601 AACCAACATCATCGACACCTCCATCAATACTCTAGGAAGGAAGGACACCCTGACACCCTGAGCAAGAAGGAATTCAGACAAATGGTGAAGCACAGTTG
 13▶ T T I I D T F H Q Y S R K E G H P D T L S K K E F R Q M V E A Q L

EcoO109I (755)

701 GCAACCTTTATGAAGAAAAGAGAAGAAATGAAGCCCTCATAAATGACATCATGGAGGACCTGGACACAAACCAGGACAATCAGCTGAGCTTTGAGGAGT
 47▶ A T F M K K E K R N E A L I N D I M E D L D T N Q D N Q L S F E E

PmlI (860)
Eco72I (860)
BbrPI (860)
BstXI (873)

801 GTATGATGCTGATGGCAAAGTTGATCTTTGCTGTGATGAGAAGTGCATGAGAACAACCCACGTGGGCATGGCCACAGTCATGGCAAAGGCTGTGGAA
 80▶ C M M L M A K L I F A C H E K L H E N N P R G H G H S H G K G C G K

NheI (929)

901 GTAATTAAGAGGTGACCCATGTGACAGCTGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAAGTGAATGCAGTAAAAAAA
 113▶ •

HpaI (1067) **MfeI (1078)**

1001 ATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAAACAATTGCATTCATTTATGTTT

EcoRI (1163)

1101 CAGGTTACAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTTAACCTCC
 1201 AAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCT
 1301 TTCATGGAGTTTAAAGATATAGTGTATTTTCCCAAGTTTGAAGTAGCTCTTCAATTTCTTTATGTTTTAAATGACTGACCTCCACATTCCTTTTATG

SspI (1402) **SwaI (1416)**
EcoO109I (1477)

1401 AAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAG
 1501 TTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTAAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTCGTGTACTTTGAGGGGATG
141▶ • N R T Y K L P I

SacI (1677)

1601 AGTTCCTCAATGGTGGTTTTGACCAGTTGCCATTCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGG
 131▶ 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 M G C P

BstXI (1706)

1701 GGCTGACCACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCC
 98▶ 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 A S G

StuI (1841)
Eco147I (1841)

1801 AATGGCAATGGCTTACAGCACAGACAGTACCCTGCCAATGTAGGCCTCAATGTGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGATGGCCGCCCG
 65▶ 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 A A G

BspHI (1991)
XmnI (1983)

1901 ACATGGTCTTGTGTCCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGATGG
 31▶ 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 K M

VspI (2049)
AseI (2049)

2001 CCCTCTATAGTGTGATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCA

SacI (2106)

2101 CTAACAGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGATTGTTACGACATTTTGGAAAGTCCCGTTG

SpeI (2204)

2201 ATTTACTAGTCAAAACAAACTCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGACTGCCA

SnaBI (2332)
Eco105I (2332)

2300 AAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTAAGTCCCAAGTAGGAAAGTCCCATAGGTCATGTAAGTGGGCATAATGCCAGGCGGGC

NdeI (2437)

2400 CATTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACTTGTACTGCTCAAGTGGCAGTTTACCGTAAATACTCCACCCATTGAC

2500 GTCAATGGAAAGTCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGCGGGGGTCTGGTGGCGGTGAGCCAGGCGGGCCATTAC

PstI (2616)

SdaI (2615) **PacI (2623)** **BspLU11I (2633)**

2600 CGTAAGTTATGTAACGCTGCAGGTTAA TTAAGAACATGTGAGCAAAAGGCCAGAAACCGTAAAAAGCCGCGTTGCTGGCGTTTTT

2698 CCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCT

2798 GGAAGCTCCCTCGTGCCTCTCTGTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCAC

ApaLI (2947)

2898 GCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGTGGGCTGTGTGCAGAACCCCCGTTAGCCCGACCCTGCGCCTTATCCGGTAACTA

2998 TCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAG

3098 TTCTTGAAGTGGTGGCCTAACTACGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCT

3198 CTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTGGTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGAT

EagI (3383)

PacI (3363) **SwaI (3372)** **NotI (3382)**

3298 CTTTTCTACGGGGTCTGACGCTCAGTGGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGAATAAAA

3398 TATCTTTATTTTATTACATCTGTGTGTTGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAA

3498 ATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA