



PvuI (7)
SgfI (6) 1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGCGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTCGGCAATTGAACGGGTGCCTA **EcoNI (96)**

101 GAGAAGGTGGCGCGGGGTAACGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245) **Bsu36I (291)**
Psp1406I (203) **PvuII (239)** **EcoNI (287)**
201 GTGAACGTTCTTTTTCGCAACGGGTTTCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACAGCGCCGCCGCCCTACCTGAGGCC

301 GCCATCCACGCCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCTCCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

SphI (560) **AgeI (552)**
501 TCTGTTTGGCGCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTCAGCATGCTGGTGAATTTCAATTTGAGGTGTGGTGTGCTGTT

601 AGTCACTCTGTCTCTTCCATTGCCAAGCACAAGCAATCTTCCCTACCAAAAAGTTGTTACCAAGGGGAACATTGTCCTCAAGCTGTTGACGCTCTCTAT
13▶ V T L S L A I A K H K Q S S F T K S C Y P R G T L S Q A V D A L Y
701 ATCAAAGCAGCATGGCTCAAAGCAACGATTCCAGAAGACCGCATAAAAAATATACGATTATTAAGGAAAGCAAAAAGCAGTTTATGAAAACTGTC
47▶ I K A A W L K A T I P E D R I K N I R L L K K K T K K Q F M K N C

XmnI (808)
801 AATTTCAAGAAGCAGCTTCTGTCCTTCTCATGGAAGACGTTTTGGTCAACTGCAATTGCAAGGCTGCAAGAAAATACGCTTTGTGGAGGACTTTTCATAG
80▶ Q F Q E Q L L S F F M E D V F G Q L Q L Q G C K K I R F V E D F H S

Bsu36I (900) **SspI (978)**
901 CCTTAGGCAGAAATTGAGCCACTGTATTTCTGTGCTTATCAGCTAGAGAGATGAAATCCATTACCAGGATGAAAAGATATTTTATAGGATTGGAAC
113▶ L R Q K L S H C I S C A S S A R E M K S I T R M K R I F Y R I G N

XcmI (1016)
1001 AAAGGAATCTACAAAGCCATCAGTGAAGTGGATATTCTTCTTCTGGATTAATAAATTATTGAAAGCAGTCAGTAAACCAAAGCAAGTACATTGATT
147▶ K G I Y K A I S E L D I L L S W I K K L L E S S Q •

MscI (1108) **NheI (1102)**
1101 TTGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGC

HpaI (1240)
1201 TATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAAATTCATTCTTTATGTTTCAGGTTTCAGGGGGAGGTGTGGGAGGTT

EcoRI (1336)
1301 TTTAAAGCAAGTAAACCTCTACAAATGGTATGGAATTCTAAAATACAGCATAGCAAACCTTAACTCCAATCAAGCCTCTACTTGAATCCTTTT

1401 CTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTGCCAATGTGCATTAGCTGTTTGACGCTCACCTTCTTTCATGGAGTTAAGATATAGTGATT

SapI (1518) **SspI (1575)** **SwaI (1589)**
1501 TTCCAAGGTTTGAAGTACTGCTCTTCATTTCTTTATGTTTTAAATGCAGTACCTCCACATTCCTTTTTAGTAAAATATTCAGAAATAATTTAAATACA

EcoO109I (1650)
1601 TCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAG

1701 GAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGC
141▶ • N R T Y K L P I L E E I T T K V L

SacI (1850) **BstXI (1879)**
1801 TTGCCATTCATCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGTCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCA
122▶ 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 R D V

1901 CCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCGTTGCTCAGCAGACCAATGGCAATGGCTTCAGCACAGACAGT
89▶ 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 C V T

StuI (2014)
2001 GACCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCAGTCTTGGTCTGATGGCGCCCGACATGGTCTTGTTCCTCATAGAGC
56▶ 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 Y L

XmnI (2156)
2101 ATGGTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCATGGTGGCCCTCTATAGTGAGTCGTATTATACT
22▶ M T I K E T A V E V L E L D Q Q S I N F T K M

AseI (2222) **SacI (2279)**
2201 ATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCT

SpeI (2377)
2301 CCCACCGTACACGCCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAACAAACTCCCATT

2401 GACGTCAATGGGGTGGAGACTTGGAAATCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATG

SnaBI (2505)
2501 ACTAATACGTAGATGACTGCCAAGTAGGAAAGTCCATAAGGTCATGACTGGGCATAATGCCAGCGGGCCATTTACCGTCAATGACGTCAATAGGGG

2601 **NdeI (2610)**
GCGTACTTGGCATATGATACACTTGATGTAAGTGGCCAGTGGGCGAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTAC

2701 **PstI (2789)** **SdaI (2788)** **PacI (2796)**
TATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGACCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAA

2801 **BspLU11I (2806)**
TTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGGCGTTTTTCCATAGGCTCCGCCCTGACGAGCATCA

2901 CAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAGATACCAGGCGTTTTCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCG

3001 ACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTCG

3101 **ApaLI (3120)**
TTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTTCAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAAGTCCAACCCGGTAAGACACGA

3201 CTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTAC

3301 ACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAACCCAGCTGGTA

3401 GCGGTGGTTTTTTTGTGTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAA

3501 **EagI (3556)** **PacI (3536)** **NotI (3555)** **SwaI (3545)**
CGAAAACACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGCAATAAAATATCTTTATTTTATTACATCTGTGTGTTG

3601 GTTTTTTGTGTAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGC

3701 CAGAACATTTCTCTATCGAA