



PvuI (7)
SgfI (6) 1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGCAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA **MfeI (82)**

101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCGTATATAAGTGCAGTAGTCGCC

HindIII (245)
Psp1406I (203) 201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCCCTACCTGAGGCC **PvuII (239)** **Bsu36I (291)**

301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCCTCCCGCCTGTGGTGCCCTCCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
NaeI (441) 401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGTCTTTGTTTCGTTT

KasI (535) **AgeI (552)** **BspHI (560)** **EcoRV (570)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTCATCATGAGCAAGATATCGCAGCAAAAACAGCACTCCAGGGGT **PvuII (658)**
1 M S K I S Q Q N S T P G V

601 GAACGGAATTAGTGTTATCCATACCCAGGCACATGCCAGCGGCTTACAGCAGGTTCTCAGCTGGTGCCTGCTGGCCCTGGGGGAGGAGGCAAAGCTGTG
13 N G I S V I H T Q A H A S G L Q Q V P Q L V P A G P G G G G K A V

NcoI (731)
701 GCTCCAGCAAGCAGAGCAAAAAGAGTTCCGCCATGGATCGAAACAGTGACGAGTATCGGCAACGCCGAGAGAGGAACAACATGGCTGTGAAAAAGACC
47 A P S K Q S K K S S P M D R N S D E Y R Q R R E R N N M A V K K S

PstI (832)
801 GGTGAAAAGCAAGCAGAAAAGCACAAGACACTGCAGAGAGTCAATCAGCTCAAAGAAGAGAATGAACGGTTGGAAGCAAAAATCAAATTGCTGACCAA
80 R L K S K Q K A Q D T L Q R V N Q L K E E N E R L E A K I K L L T K

SphI (933)
901 GGAATTAAGTGTACTCAAAGATTTGTTCTTGAGCATGCACACAACCTTGACACAACGTACAGTCCATTAGCACTGAAAATACGACAGCAGATGGCGAC
113 E L S V L K D L F L E H A H N L A D N V Q S I S T E N T T A D G D

MscI (1029)
NheI (1023) 1001 AATGCAGGACAGTAGACCTCACCGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTT
147 N A G Q •

HpaI (1161) **MfeI (1172)**
1101 TATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGCATTCATTTATGTTTCAGGTT

EcoRI (1257)
1201 CAGGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAAACCTCTACAAATGTGGTATGGAATCTAAAATACAGCATAGCAAACCTTTAACCTCCAATCA
1301 AGCCTCTACTTGAATCCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGACGCTCACCTTCTTTTCATG

SspI (1496)
1401 GAGTTAAGATATAGTGATTTTTCCCAAGGTTTGAAGTACTCTTCAATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTATGAAAAATA

SwaI (1510) **EcoO109I (1571)**
1501 TTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGT
1601 AGTTGGACTTAGGGAACAAAGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTCTGGTACTTGAGGGGATGAGTTCC
141 • N R T Y K L P I L E

SacI (1771)
1701 TCAATGGTGGTTTTGACCAGCTTGCCATTCATCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGA
129 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 S V

BstXI (1800)
1801 CCACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGC
96 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 I A

StuI (1935)
1901 AATGGCTTCAGCACAGACAGTGACCCTGCCAATGTAGGCCCTAATGTGGACAGCAGAGATGATCTCCCAAGTCTTGGTCTGATGGCCGCCCCGACATGG
63 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 V H

BspHI (2085) **BbsI (2081)** **XmnI (2077)**
2001 TGCTTGTGCTCATAGAGCATGGTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCATGATGGCCCTCC
29 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

AseI (2143)
2101 TATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAA

SacI (2200) **SpeI (2298)**
2200 CGAGCTCTGCTTATATAGACCTCCACCCTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTA

2300 CTAGTCAAAACAACTCCCAATGACGTCATGGGGTGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCCAATGATGTAAGTCCAAACC

SnaBI (2426)

2399 GCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTT

NdeI (2531)

2499 ACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGTACTGCCAAGTGGGCGAGTTTACCGTAAATACTCCACCCATTGACGTCAA

2599 TGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAA

PstI (2710)

SdaI (2709) PacI (2717) **BspLU11I (2727)**

2699 GTTATGTAACGCCTGCAGGTTAA TTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCTTGCTGGCGTTTTCCATA

2797 GGCTCCGCCCCCTGACGAGCATCACA AAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCTGGAAG

2897 CTCCCTCGTGCCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCACGCTGT

ApaLI (3041)

2997 AGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTC

3097 TTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTT

3197 GAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGA

3297 TCCGGCAAACAACCCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTT

EagI (3477)

PacI (3457) SmaI (3466) **NotI (3476)**

3397 CTACGGGTCTGACGCTCAGTGGAAACGAAAACCTACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGCAATAAAATATCT

3497 TTATTTTCATTACATCTGTGTGTTGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGG

3597 CTGTCCCAAGTGAAGTGCAGGTGCCAGAACATTTCTCTATCGAA