



PvuI (7)
SgfI (6) **MfeI (82)**
1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) **HindIII (245)**
PvuII (239)
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGGCCGAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCCCTACCTGAGGCC
301 GCCATCCACGCGGTTGAGTGCAGTCTGCCGCTCCCGCCTGTGGTGCCTCCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMI (441) **NaeI (441)**
401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGTCTTTGTTTCGTTT

NcoI (560)
BstEII (555)
AgeI (552)
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCCTACCTGAGATCACCGGTACCATTGGCTGGACACCTGGCTTCGGATTTCGCCTTCTCGCC
1▶ M A G H L A S D F A F S P

SfiI (623) **XcmI (675)**
HindIII (669)
601 CCCTCCAGGTGGTGGAGGTGATGGGCCAGGGGGCCGGAGCCGGGCTGGGTTGATCCTCGGACCTGGCTAAGCTTCCAAGGCCCTCTGGAGGGCCAGGA
13▶ P P G G G D G P G G P E P G W V D P R T W L S F Q G P P G G P G
701 ATCGGGCCGGGGTGGGCCAGGCTCTGAGGTGTGGGGATTCCCCATGCCCCCGCGTATGAGTTCTGTGGGGGATGGCGTACTGTGGGCCCCAGG
47▶ I G P G V G P G S E V W G I P P C P P P Y E F C G G M A Y C G P Q
801 TTGAGTGGGGCTAGTGCCTCAAGGCGGCTTGGAGACCTCTCAGCCTGAGGGCGAAGCAGGAGTCGGGTGGAGAGCAACTCCGATGGGGCTCCCGGA
80▶ V G V G L V P Q G G L E T S Q P E G E A G V G V E S N S D G A S P E

Bsp120I (790)
901 GCCCTGCACCGTCAACCCCTGGTGCCTGAAAGCTGGAGAAGGAGAAGCTGGAGCAAACCCGGAGAGTCCCAGGACATCAAAGCTCTGCAGAAAGAACTC
113▶ P C T V T P G A V K L E K E K L E Q N P E E S Q D I K A L Q K E L
1001 GAGCAATTTGCCAAGCTCCTGAAGCAGAAGAGGATCACCTGGGATATACACAGGCCGATGTGGGGCTCACCTGGGGTCTATTTGGGAAGGTATTCA
147▶ E Q F A K L L K Q K R I T L G Y T Q A D V G L T L G V L F G K V F

XhoI (997)
1101 GCCAAACGACCATCTGCCCTTTGAGGCTCTGCAGCTTAGCTTCAAGAACATGTGTAAGCTGGCCCTTGTCTGCAGAAGTGGGTGGAGGAAGCTGACAA
180▶ S Q T T I C R F E A L Q L S F K N M C K L R P L L Q K W V E E A D N
1201 CAATGAAAATCTCAGGAGATATGCAAAGCAGAACCCCTGTGCAGGCCGAAAGAGAAAGCGAACCACTATCGAAGAACCGAGTGGAGGCAACCTGGAG
213▶ N E N L Q E I C K A E T L V Q A R K R K R T S I E N R V R G N L E

BspLUII (1148)
1301 AATTTGTTCTGCAGTGCCTGAAACCCACACTGCAGCAGATCAGCCACATCGCCAGCAGCTTGGGCTCGAGAAGGATGTGGTCCGAGTGTGGTTCTGTA
247▶ N L F L Q C P K P T L Q Q I S H I A Q Q L G L E K D V V R V W F C

XhoI (1366)
1401 ACCGGCGCCAGAAGGGCAAGCGATCAAGCAGCGACTATGCACAACGAGAGGATTTTGGGCTGCTGGGTCTCCTTTCTCAGGGGGACAGTGTCTTTCC
280▶ N R R Q K G K R S S S D Y A Q R E D F E A A G S P F S G G P V S F P

PshAI (1484)
1501 TCTGGCCCCAGGGCCCATTTTGGTACCCAGGCTATGGGAGCCCTCACTTCACTGCAGTGTACTCCTCGGTCCCTTTCCCTGAGGGGGAAGCCTTTCC
313▶ L A P G P H F G T P G Y G S P H F T A L Y S S V P F P E G E A F P

Ppu10I (1630) **NsiI (1630)** **BspEI (1645)** **Tth111I (1670)** **SacII (1698)**
1601 CCTGTCTCCGTCACCACTCTGGGCTCTCCCATGCATTCAAACGAATCCGGAGGGGGTGGCTCTCCTGGCAGACGTGCTGCCGACAGCAGGCGCCGC
347▶ P V S V T T L G S P M H S N E S G G G S P G R R R R R R R R R R

NheI (1711)
BamHI (1702) **MscI (1717)**
1701 CGGATCTGAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAT
380▶ R G S •

HpaI (1849) **MfeI (1860)**
1801 TTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAACAAATTGCATTCTTTTATGTTTCAGGTTTCAGGGGAGGTG

EcoRI (1945)
1901 TGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAAACTTTAACCTCCAATCAAGCCTCTACTTG
2001 AATCCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTCTTTTCATGGAGTTTAAGATA

SspI (2184) **Swal (2198)**
2101 TAGTGATTTTTCCAAGTTTGAAGTACTCTTCAATTTCTTTATGTTTAAATGCACTGACCTCCACATTCCCTTTTATGATAAAATATTAGAAATAAT
2201 TAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAG
2301 GGAACAAAGGAACCTTAAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGGGGGATGAGTTTCTCAATGGTGGTT
1+1◀ • N R T Y K L P I L E E I T T

SacI (2459) **BstXI (2488)**
2401 TTGACCAGCTTGCCATTCATCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCCTGATGG
125◀ 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 V R I S

2501 ATCTGTCCACCTCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCAGC
 924 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 (2623)
 Eco147I (2623)

2601 ACAGACAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAGTCTTGGTCTGATGGCCGCCCGACATGGTCTTGTGTC
 594 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

BspHI (2773)

2701 TCATAGAGCATGGTATCTTCTCAGTGGCGACCTCCACCAGTCCAGATCCTGCTGAGAGATGTTGAAGTCTTTCATGATGGCCCTCCTATAGTGAGTCG
 254 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 (2831)
 AseI (2831)

2801 TATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGATGGCGTCTCCAGCTATCTGACGGTTCACTAAACGAGCTCTGCTT
 SpeI (2986)

2900 ATATAGACCTCCCACCGTACACGCCTACGCCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCCTTGATTTACTAGTCAAAC
 2999 AAACCTCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGG

SnaBI (3114)
 Eco105I (3114)

3099 TAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTACCGTCATTGAC

NdeI (3219)

3199 GTCAATAGGGGGCTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCGATTTACCGTAAATACTCCACCCATTGACGTCAATGAAAGTCCCT

SdaI (3397)

3299 ATTGGCGTACTATGGGAACATACGTCATTATTGACGTCAATGGGGGGGGTCTTGGGCGGTGAGCCAGGCGGGCCATTACCGTAAGTTATGTAACGC

PacI (3405) BspLU11I (3415)

3399 CTGCAAGTTAA TTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCC
 3497 CTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGCGTTTTCCCTGGAAGCTCCCTCGTGCG
 3597 CTCTCCTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGT

ApaLI (3729)

3697 TCGGTGTAGGTCGTTGCTCCAAGTGGGCTGTGTGCACGAACCCCCGTTGAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACC
 3797 CCGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCC
 3897 TAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAA
 3997 ACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTG

EagI (4165)
 PacI (4145) SmaI (4154) NotI (4164)

4097 ACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTTCATGGCTAGTTAATTAACATTTAAATCAGCGCCCAATAAAATATCTTTATTTTCATTA
 4197 CATCTGTGTGTTGGTTTTTGTGTGAATCGTAACATAACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTG
 4297 CAAGTGCAGGTGCCAGAACATTTCTATCGAA