



PvuI (7)
SgfI (6) **MfeI (82)**
1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGGGGTAAGTGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245)
Psp1406I (203) **PvuII (239)** **Bsu36I (291)**
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGGCCGAGAACACAGCTGAAGCTTCAGAGGGCTCGCATCTCTCTTACCGCCGCCGCCCTACCTGAGGGCC
301 GCCATCCACGCCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
NaeI (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGTCTTTGTTTCGTTT

NcoI (560)
BstEII (555) **RsrII (589)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCGCTACCTGAGATCACCGGTCACCATGGCGGCTGGGCTGCGGAAACGCGGCCGGTCCGGTTC
1▶ M A A G L R K R G R S G S
KasI (535) **AgeI (552)** **EagI (585)** **SacII (599)**

BssHIII (639) **KasI (656)**
601 CGCGGCCAGGCAGAGGGACTCTGCAAGCAATGGCTGCAGCGCCTGGCAAGAGCGCGCCTGCTGCTGCGGAGCCGCTACACGCTGCTGGTGGCC
13▶ A A Q A E G L C K Q W L Q R A W Q E R R L L L R E P R Y T L L V A

DraIII (745) **SfiI (777)**
701 GCCTGCCTCTGCCTGGCGAGGTGGGCATCACCTTCTGGGTCAATCACAGGGTGGCATAACAGAGATTGACTGGAAGCCATACATGGCCGAGGTAGAAG
47▶ A C L C L A E V G I T F W V I H R V A Y T E I D W K A Y M A E V E

Acc65I (811) **PvuII (863)** **BsrGI (875)**
801 GCGTCATCAATGGTACCTATGACTATACCAACTGCAGGGTGACACCGGACCCTTGTGTACCCAGCTGGTTTCGTGTACATCTTTATGGGGTTGACTA
80▶ G V I N G T Y D Y T Q L Q G D T G P L V Y P A G F V Y I F M G L Y Y

BbsI (976)
901 TGCCACCAGCCGAGGCACTGACATCCGCATGGCCAGAACATCTTTGCTGTGCTCTACCTGGCTACCTTGCTGCTTCTTCTGATCTATCACCAGACC
113▶ A T S R G T D I R M A Q N I F A V L Y L A T L L L V F L I Y H Q T

Acc65I (1005) **NcoI (1094)** **MscI (1091)**
1001 TGCAAGGTACCTCCCTTCGTCCTTTTCTTCATGTGCTGCGCCTCTTACCGTGCCACTCCATCTTTGTGCTGCGGCTCTTCAATGACCCAGTGGCCATGG
147▶ C K V P P F V F F F M C C A S Y R V H S I F V L R L F N D P V A M

Eco47III (1136)
AfeI (1136)
1101 TGCTGCTCTTCTCAGTATCAACCTCCTGCTGGCCAGCGCTGGGGTGGGTTGCTGCTTTTTTCAGCCTGGCAGTCTCTGTGAAGATGAATGTGCTGCT
180▶ V L L F L S I N L L L A Q R W G W G C C F F S L A V S V K M N V L L

Bsp120I (1250)
1201 CTTGCCCCCTGGGTTACTGTTTCTTCTCCTCACACAGTTTGGCTTCCGTGGGGCCCTCCCAAGCTGGGAATCTGTGCTGGCCTTCAGGTGGTGTGGGG
213▶ F A P G L L F L L L T Q F G F R G A L P K L G I C A G L Q V V L G
1301 CTGCCCTTCTGCTGGAGAACCAGCGGCTACCTGTCCCGCTCCTTTGACCTTGGCCGCCAGTTTCTGTTCCACTGGACAGTGAAGTGGCGTCTCTCC
247▶ L P F L L E N P S G Y L S R F D L G R Q F L F H W T V N W R F L
1401 CAGAGCGCTCTTCTGCATCGAGCCTTCCACCTGGCCCTGTTGACTGCCACCTCACCTGCTCCTGCTGTTTGGCCTTGCAGGTGGCACAGGACAGG
280▶ P E A L F L H R A F H L A L L T A H L T L L L L F A L C R W H R T G

BamHI (1524)
1501 GGAAAGTATCTTGTGCTGCTGAGGGATCCCTCCAAAAGGAAGTTCCACCCAGCCCCTTACACCAACCAGATCGTTTCTACCCTCTTACCTCCAAC
313▶ E S I L S L L R D P S K R K V P P Q P L T P N Q I V S T L F T S N

XcmI (1666)
1601 TTCATTGGCATCTGCTTACGCGCTCCCTCCACTACCAGTTCTACGTCTGGTATTTCCACACACTGCCATACCTCCTGTGGGCCATGCCTGCACGCTGGC
347▶ F I G I C F S R S L H Y Q F Y V W Y F H T L P Y L L W A M P A R W

NdeI (1791)
1701 TCACACACTGCTCAGGTTGTTGGTGTGGGGCTCATCGAGCTCTCCTGGAACACATACCCTTCCACATCCTGCAGCTCTGCTGCCCTGCACATATGCCA
380▶ L T H L L R L L V L G L I E L S W N T Y P S T S C S S A A L H I C H

Bsp120I (1827) **Bsu36I (1893)**
1801 TGCCGTCATCCTGCTGCAGCTCTGGCTGGGCCGAGCCTTTCCCAAGAGCACCCAACACAGCAAGAAAGCCCACTGAAGTCCACCCCTTCCCTCAGG
413▶ A V I L L Q L W L G P Q P F P K S T Q H S K K A H •

MscI (1910)
NheI (1904)
1901 ACCTGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGAT

HpaI (2042) **MfeI (2053)**
2001 GCTATTGCTTTATTTGTAACATTATAAGTGAATAAACAAGTTAACAACAACAAATGCATTATTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGG

EcoRI (2138)
2101 TTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATCTAAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGAATCCTT
2201 TTCTGAGGATGAATAAGGCATAGGCATCAGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGTA

SspI (2377) **SwaI (2391)**
2301 TTTCCCAAGTTTGAAGTACGCTCTTCAATTTTATGTTTTAAATGCACTGACCTCCACATCCCTTTTTAGTAAAAATTCAGAAATAATTTAAATA

2401 CATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAA
2501 AGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGAGGGGGATGAGTTCCTCAATGGTGGTTTTGACCA
141 • N R T Y K L P I L E E I T T K V L
BstXI (2681)
2601 GCTTGCCATTCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTC
123 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
2701 CACCTCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCAGCACAGACA
90 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 C V
StuI (2816)
2801 GTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGATGGCCGCCCGACATGGTGCTTGTGTCCTCATAGA
56 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 E Y L
BspHI (2966)
BbsI (2962)
XmnI (2958)
2901 GCATGGTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCTCATGATGGCCCTCCTATAGTGAGTCGTATTATA
23 M T I K E T A V E V L E L D Q Q S I N F T K M
AseI (3024)
3001 CTATGCCGATATACTATGCCGATGATTAATTGTCAAACACGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCCTAAACGAGCTCTGCTTATATAGAC
SpeI (3179)
3101 CTCCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTACGACATTTTGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCC
3200 ATTGACGTC AATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCG
SnaBI (3307)
3300 ATGACTAATACGTAGATGTA CTGCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTACCCTGATTGACGTCAATAG
NdeI (3412)
3400 GGGGCGTACTTGGCATATGATACACTTGTACTGCCAAGTGGGCGAGTTTACCGTAAATACTCCACCATTGACGTCAATGAAAGTCCCTATTGGCGT
SdaI (3590)
3500 TACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGCTGTTGGGCGGTGAGCCAGGCGGGCCATTACCCTAAGTTATGTAACGCCTGCAGG
PacI (3598) BspLU11I (3608)
3599 TT AA TTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGC
3699 ATCACA AAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCCCTGGAAGCTCCCTCGTGCGCTCTCTGT
3799 TCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAG
ApaLI (3922)
3899 GTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTAGCCCGACCGCTGCGCTTATCCGTAACATATCGTCTTGTAGTCCAACCCGGTAAGAC
3999 ACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGG
4099 CTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAAACAAACCACCGCT
4199 GGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGT
EagI (4358)
PacI (4338) SwaI (4347) NotI (4357)
4299 GGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGAATAAAATATCTTTATTTTTCATTACATCTGTGT
4399 GTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGCAG
4499 GTGCCAGAACATTTCTCTATCGAA