



PvuI (7)
SgfI (6) MfeI (82) EcoNI (96)
1 GGATCTGGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245)
Psp1406I (203) **PvuII (239)** EcoNI (287)
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCCCTACCTGAGGCC
301 GCCATCCACGCGGTTGAGTGCAGTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

BspHI (566)
EcoRV (558) **BsaBI (558)** **BsrBI (570)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGCGCCTACCTGAGATCACCGGAGATATCCATCATGAGCGGGGAATCAATGAATTTACAGCGATGT
601 TTTGACTCCAGTGAAGATTATTTGTGTGTCAGTCAATACTTCATATTACTCAGTTGATTCTGAGATGTTACTGTCTCCTTGAGGAGGTGAGCGATTC
11▶ F D S S E D Y F V S V N T S Y Y S V D S E M L L C S L Q E V R Q F
1▶ M S G E S M N F S D V
701 TCCAGGCTATTTGTACCGATTGCCTACTCCTTGATCTGTGCTTTGGCCTCCTGGGGAATATTCTGGTGGTGATCACCTTTGCTTTTATAAGAAGGCCA
45▶ S R L F V P I A Y S L I C V F G L L G N I L V V I T F A F Y K K A
SspI (757)
801 GGTCTATGACAGAGCTCTATCTTGAACATGGCCATTGCAGACATCCTTTTGTCTTACTCTCCATTCTGGGCAGTGAGTCATGCCACCGGTGCGTG
78▶ R S M T D V Y L L N M A I A D I L F V L T L P F W A V S H A T G A W
PshAI (807) **SgrAI (888)**
901 GGTTTTCAGCAATGCCACGTGCAAGTTGCTAAAAGGCATCTATGCCATCAACTTTAACTGCGGGATGCTGCTCCTGACTTGCATTAGCATGGACCGGTAC
111▶ V F S N A T C K L L K G I Y A I N F N C G M L L L T C I S M D R Y
AgeI (889)
AgeI (992)
BbrPI (915)
1001 ATCGCCATTGTACAGGCGACTAAGTCATTCCGGCTCCGATCCAGAACACTACCGCGCAGCAAAATCATCTGCCTTGTGTGGGGGCTGTCAGTCATCA
145▶ I A I V Q A T K S F R L R S R T L P R S K I I C L V V W G L S V I
BsrGI (1008)
1101 TCTCCAGCTCAACTTTTGTCTTCAACAAAAATACAACACCCAAGGCAGCGATGTCTGTGAACCAAGTACCAGACTGTCTCGGAGCCCATCAGGTGGAA
178▶ I S S S T F V F N Q K Y N T Q G S D V C E P K Y Q T V S E P I R W K
BbsI (1117)
1201 GCTGCTGATGTTGGGGCTTGAGCTACTCTTTGGTTTCTTTATCCCTTTGATGTTTCATGATATTTTGTACACGTTTATTGTCAAAACCTTGGTCAAGCT
211▶ L L M L G L E L L F G F F I P L M F M I F C Y T F I V K T L V Q A
BspHI (1253)
1301 CAGAATTC TAAAAGGCACAAAGCCATCCGTGTAATCATAGCTGTGGTCTGTGTTTCTGGCTGTGCAGATTCTCATAACATGGTCTGCTTGTGACGG
245▶ Q N S K R H K A I R V I I A V V L V F L A C Q I P H N M V L L V T
EcoRI (1302)
1401 CTGCAATTTGGGTAAAATGAACCGATCCTGCCAGAGCGAAAAGCTAATTGGCTATACGAAAACCTGTCACAGAAGTCTGGCTTCTCCTGCACTGCTGCCT
278▶ A A N L G K M N R S C Q S E K L I G Y T K T V T E V L A F L H C C L
EcoO109I (1562)
BglIII (1553)
1501 GAACCCTGTGCTCTACGCTTTTATTGGGCAGAAGTTCAGAAACTACTTTCTGAAGATCTTGAAGGACCTGTGGTGTGTGAGAAGGAAGTACAAGTCTCA
311▶ N P V L Y A F I G Q K F R N Y F L K I L K D L W C V R R K Y K S S
DraIII (1683)
1601 GGCTTCTCCTGTGCCGGGAGTACTCAGAAAACATTTCTCGGCAGACCAGTGAGACCGCAGATAACGACAATGCGTCGCTTCTCACTATGTGATGAGAAG
345▶ G F S C A G R Y S E N I S R Q T S E T A D N D N A S S F T M •
NsiI (1769) **NheI (1791)**
1701 CTGAGTCTCCCTAAGGCATGTGTGAAACATACTCATAGATGTTATGCAAAAAAAGTCTATGGCCAGGTATGCATGGAAAATGTGGGAATTTGCTAGCTGG
1801 CCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTAT

HpaI (1929) MfeI (1940)
1901 TTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAATTGCATTCTTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAA

EcoRI (2025)
2001 GTAAAACCTCTACAAATGTGGTATGGAATCTAAAATACAGCATAGCAAACTTTAACCTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGA
2101 ATAAGGCATAGGCATCAGGGGCTTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTTAAAGATATAGTGATTTTCCCAAGGTT

SapI (2207) **SspI (2264)** **Swal (2278)**
2201 TGAAGTCTCTTCAATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTGTAGTAAAATATTCAGAAATAATTTAAATACATCATTGCAATG

EcoO109I (2339)
2301 AAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTGTAGTGGACTTAGGGAACAAAGGAACCTTTAAT
2401 AGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGATGAGTTTCTCAATGGTGGTTTTGACCAGCTTGCCATTCAT
141▶ • N R T Y K L P I L E E I T T K V L K G N M

2501 CTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCCTGATGGATCTGTCCACCTCATCAGAG
 119 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 E D S
 2601 TAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCAGCACAGACAGTACCCTGCCAA
 85 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 V R G I
StuI (2703)
 2701 TGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGATGGCCGCCCGACATGGTGCTTGTTCCTCATAGAGCATGGTATCTT
 52 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 M T I K
BbsI (2849)
XmnI (2845)
 2801 CTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTCTTCATGGTGGCCCTCTATAGTGAGTCGTATTATACATATGCCGATATA
 19 E T A V E V L E L D Q Q S I N F T K M
AseI (2911) **SacI (2968)**
 2901 CTATGCCGATGATTAATTGTCAAACACAGCGTGATGGCGTCTCCAGCTTATCTGACGGTTCACATAACGAGCTCTGCTTATATAGACCTCCACCGTACA
SpeI (3066)
 3001 CGCCTACCGCCCATTTGCGTCAATGGGCGGAGTTGTTACGACATTTTGAAAGTCCCCTTGATTTACTAGTCAAAAACAACTCCCATTTGACGTCAATGG
SnaBI (3194)
 3101 GGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTA
NdeI (3299)
 3201 GATGTAAGTCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGC
 3301 ATATGATACACTTGATGTACTGCCAAGTGGGAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACAT
PacI (3485)
PstI (3478) **SdaI (3477)** **BspLU11I (3495)**
 3401 ACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATTAGAACATG
 3501 TGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAGGCCGCTTGTGGCGTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGAC
 3601 GCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCCTGGAAGCTCCCTCGTGCGCTCCTGTTCCGACCCCTGCCGCT
 3701 TACCGGATACCTGTCGCTTTCTCCCTTCGGGAAAGCGTGGCGTTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAG
ApaLI (3809)
 3801 CTGGGCTGTGTGCACGAACCCCCGTTGAGCCGACCGCTGCGCCTTATCCGTAACATATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCAC
 3901 TGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAAC
 4001 AGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGTTTT
 4101 TTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAACGAAAACCTCAC
EagI (4245)
PacI (4225) **SwaI (4234)** **NotI (4244)**
 4201 GTTAAGGGATTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCCAATAAAAATATCTTTATTTTTCATTACATCTGTGTGTTGTTTTTTGTG
 4301 GAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTT
 4401 TCTATCGAA