



EcoRI (19)
1 **NotI (2)** **XbaI (15)** **SdaI (29)** **SpeI (36)** **NcoI (70)**
CGCGCCGCTATGCATCTAGAATTCCTGCAGGGCCCACTAGTCTCCAGGCATGACTCCAACAATGCATCCCATGGGATTTGGGGTCCCCAGATCTGGGG

101 CTTGTAGGCTGACTCTCCCTGTGCACACGTCTCATAACGCATGCGTGCACCCATTGCTGCCCGCCCTTGACAGGGAGTACAGAGGGAGGACTG

201 GGTATAGCCCTGCTTATCAGCAGCTTCCAGCTTCTCTGCTGGATTCTTAGAGGCTGGGGTCTAGAACGAGCTGGTGCACGTGGCTTCCCAAAGAT

301 CTCTCAGATAATGAGAGGAAATGCAGTCATCAGTTTGAGAAGGCTAGGGATTCTGGGCCATAGCTCAGACCTGCGCCACCATCTCCCTCCAGGCAGCC

BspHI (437)
401 CTTGGCTGGTCCCTGCGAGCCCGTGGAGACTGCCAGTcATGATTCTGGGGCCCTGCATGCTGCTGCTGCTGCTGCTGGGCTGAGGCTACAGCTCTC
M I L G P C M L L L L L L L L L G L R L Q L S

501 CTTGGGCATCATCCAGTTGAGGAGGAGAACCCGACTTCTGAAACCGCAGGACGCGAGGGCCCTGGGTGCCGCAAGAAGCTGCAGCTGCACAGACA
21▶ L G I I P V E E E N P D F W N R E A A E A L G A A K K L Q P A Q T

601 GCCGCAAGAACCTCATCATCTTCTGGCGATGGGATGGGGTGTCTACGGTGACAGCTGCCAGGATCCTAAAAGGCGAGAAGAAGGACAACTGGGGC
55▶ A A K N L I I F L G D G M G V S T V T A A R I L K G Q K K D K L G

NdeI (732)
701 CTGAGATACCCTGGCTATGGACCGCTTCCCATATGGTCTCTGTCCAAGACATACAATGTAGACAAACATGTGCCAGACAGTGGAGCCACAGCCACGGC
88▶ P E I P L A M D R F P Y V A L S K T Y N V D K H V P D S G A T A T A

801 CTACCTGTGCGGGTCAAGGGCAACTTCCAGACCATTGGCTTGTAGTGACGCGCCGCTTAAACAGTGCAACACGACACGCGGCAACGAGGTCTATCTCC
121▶ Y L C G V K G N F Q T I G L S A A A R F N Q C N T T R G N E V I S

901 GTGATGAATCGGGCAAGAAAGCAGGGAAGTCAGTGGGAGTGGTAAACACCACACAGAGTGCAGCAGCCCTCGCCAGCCGGCACCTACGCCACACGGTGA
155▶ V M N R A K K A G K S V G V V T T T R V Q H A S P A G T Y A H T V

1001 ACCGCAACTGGTACTCGGACGCGACGTGCTCGCCGCGCAGGAGGGTGCAGGACATCGCTACGACATCTCCAACATGGACATTTGATGT
188▶ N R N W Y S D A D V P A S A R Q E G C Q D I A T Q L I S N M D I D V

1101 GATCTGGTGGAGCCGAAAGTACATGTTTCGCATGGGAACCCAGACCCTGAGTACCCAGATGACTACAGCAAGGTGGACAGGCTGGACGGGAAG
221▶ I L G G G R K Y M F R M G T P D P E Y P D D Y S Q G G T R L D G K

1201 AATCTGGTGCAGGAATGGCTGGCAAGCGCCAGGGTGCACCGGATGTGTGGAACCGCACTGAGCTCATGCAGGCTTCCCTGGACCCGCTGTGACCCATC
255▶ N L V Q E W L A K R Q G A R Y V W N R T E L M Q A S L D P S V T H

1301 TCATGGGTCTCTTTGAGCCTGGAGACATGAAATACGAGATCCACCAGACTCCACACTGGACCCCTCCCTGATGGAGATGACAGAGGCTGCCCTGCGCT
288▶ L M G L F E P G D M K Y E I H R D S T L D P S L M E M T E A A L R L

SacII (1419)
1401 GCTGAGCAGGAACCCCGGCTTCTTCTTCTGTTGGAGGGTGGTGCATCGACCACGGTATCACGAAAGCAGGGCTTACCGGGCACTGACTGAGACG
321▶ L S R N P R G F F L F V E G G R I D H G H H E S R A Y R A L T E T

1501 ATCATGTTGACGACGCCATTGAGAGGGCGGGCCAGCTCACCAGCGAGGAGGACACGCTGAGCCTCGTCACTGCCGACCCTCCACGTCTTCTCTTCTG
355▶ I M F D D A I E R A G Q L T S E E D T L S L V T A D H S H V F S F

1601 GAGGCTACCCCTGCGAGGGAGCTCCATCTTGGGCTGGCCCTGGCAAGGCCGGGACAGGAAGGCTACACGGTCTCTTATACGGAAACGGTCCAGG
388▶ G G Y P L R G S S I F G L A P G K A R D R K A Y T V L L Y G N G A P G

1701 CTATGTGCTCAAGGACGCGCCCGGATGTACCGAGAGCGAGGCGGGAGCCCGAGTATCGGCAGCAGTGCAGCTGCCCCCTGGACGAAGAGACC
421▶ Y V L K D G A R P D V T E S E S G S P E Y R Q Q S A V P L D E E T

1801 CACGAGGCGAGGACGTGGCGGTGTCGCGCGCGCCCGCAGGCGCACCTGGTTCACGGCGTGCAGGAGCAGACCTCATAGCGCACGTATGGCCTTCTG
455▶ H A G E D V A V F A R G P Q A H L V H G V Q E Q T F I A H V M A F

1901 CCGCTGCTGGAGCCCTACCCGCTGCGACCTGGCGCCCGCCCGCCAGCCACCGACCGCGCCAGCCCGGGGGCGTCCCGGTCCAAGCGTCTGGATTG
488▶ A A C L E P Y T A C D L A P P A G T T D A A H P G R S R S K R L D •

NheI (2003)
2001 AAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGACAAACCACAACAGTAAGATGCAGTGAATAAATGCTTTATTTGTAAATTTGTGATGC
521▶

MfeI (2152)
2101 TATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAATTGCATTCATTTATGTTTCAGGTTTCAGGGGAGGTGTGGAGGTT

2201 TTTTAAAGCAAGTAAACCTCTACAATGTGGTATGGAATTAATTCTAAAATACAGCATAGCAAACCTTTAACTCCAAATCAAGCCTCTACTTGAATCC

2301 TTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTTAAAGATATAGTG
2401 TATTTTCCAAGGTTTGAACCTAGCTCTTCAATTTCTTTATGTTTTAAATGCACTGACCTCCACATTTCCCTTTTTAGTAAATATTCAGAAATAATTTAA
2501 TACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAAATCCAGATGCTCAAGGCCCTTATAATATCCCCAGTTTAGTAGTTGACTTAGGGAAC
2601 AAAGAACCTTTAATAGAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTATCTCAGTCTGCTCTCTGCCACAAAGTGACGCAAGTTGCCGGCCGGG
125▶ • D Q E E A V F H V C N G A P

2701 TCGCGAGGGCGAACTCCGCCCCACGGTCTGCTCGCGATCTCGGTCTATGGCCGGCCGGAGGCGTCCCGGAAGTTGTTGGACACGACCTCCGACCT
109▶ D R L A F E R G W P Q E G I E T M A P G S A D R F N T S V V E S W E

2801 CGGCGTACAGCTCGTCCAGGCCGCGCACCCACCCAGGCCAGGGTGTGTCGGCACCACTGGTCTGGACCGCGCTGATGAACAGGGTACAGTCTGCT
76▶ A Y L E D L G R V W V W A L T N D P V V Q D Q V A S I F L T V D D

SgrAI (2910)
2901 CCGGACCACCCGCGAAGTCTCTCCACGAAGTCCCGGAGAACCAGCGGCTCGGTCCAGAATCGACCGCTCCGGCGACGTGCGCGCGGTGAGC
43▶ R V V G A F D D E V F D R S F G L R D T W F E V A G A V D R A T L

MfeI (3073)
3001 ACCGGAACGGCACTGGTCAACTTGGCCATGATGGCTCCTCCTGTCAAGGAGGAAAGAGAAGAAGGTTAGTACAATTGCTATAGTGAGTTGTATTACT
9▶ V P V A S T L K A M

3101 ATGCAGATATACTATGCAATGATTAATTGTCAAAGTGGCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGAAAAGGCCAGGAACCGTAAAA

3201 AGGCCGCTTGTGGCTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCAAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATA

3301 AAGATAACAGGCGTTTCCCCTGGAAGCTCCCTCGTGGCTCTCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGC

3401 GTGGCGCTTCTCATAGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACC

3501 GCTGCGCTTATCCGGTAACTATCGTCTTGTAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGTTAACAGGATTAGCAGAGCGAG

3601 GTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACC
3701 TTCGGAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAACCACCGCTGGTAGCGGTGGTTTTTTGTTTGCAAGCAGCAGATTACGCGCAGAAAAAAG
3801 GATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAACGAAACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATT
3901 TAAATCA