



EcoRI (23)

NotI (2) **XbaI (19)** **SdaI (38)** **SpeI (45)**

1 GCGGCCGCGTCGACGATATCTAGAATTCGGATCCTGCAGGGCCCACTAGTGCCCCACCCCGTCCGCGTTACAA
75 CCGGGAGGCCCGTGGTCTGCACCGTCACCTCCTCCCTGTGACCGCCACCTGATACCCAAACAACTTTCT

Eco47III (176)

149 CGCCCCCAGTCCCCAGCTCGCCGAGCGTTGCGGGGAGCCACCCAGCCTCAGTTTCCCCAGCCCCGGGCGGG
223 GCGAGGGGCGATGACGTCATGCCGCGCGCGCATTGTGGGCGGGGCGAGGCGGGGCGCCGGGGGAGCAACA
297 CTGAGACGCCATTTTCGCGCGGGAGCGGCGCAGGCGGCCGAGCGGGACTGGCTGGGTGCGGTGGGCTGCTGG

SacII (383)

371 TGCAGGAGCCGCGGGGCTGTGCTCGGCGGCCAAGGGGACAGCGCTGGGTGGCCGAGGATGCTGCGGGGCGGT
445 AGCTCCGGCGCCCTCGCTGGTACTGCTGCGCCGTGCCTCACACAGCCGAGGCGGGCTCGGCGCACAGTCGCT

NcoI (588)

519 GCTCCGCGCTCGCGCCCGGGCGCGCTCCAGGTGCTGACAGCGGAGAGCGCGCCCTCAGGAGCAACACCATG
593 GAAATCAAGGTGCTGTTTGCCTCATCTGTATTGCTGTTGCTGAGGCAAAACCACTGAAATCAATGAAGACCT
2 E I K V L F A L I C I A V A E A K P T E I N E D L

BglIII (703)

667 CAATATAGCTGCTGTGGCCTCCAACCTTGGCCACCACAGATCTTGAGACTGACCTGTTACCAACTGGGAGACCA
26 N I A A V A S N F A T T D L E T D L F T N W E T
741 TGAATGTATTAGCACTGACACAGAGCAGGTGAACACAGATGCTGACAGGGCAAGCTGCCTGGCAAAAACTC
51 M N V I S T D T E Q V N T D A D R G K L P G K K L
815 CCCCCAGATGCTGAGGGAGCTGGAGGCCAATGCCAGAAGGGCTGGTGCACAAGAGGCTGCCTCATTTGCT
76 P P D V L R E L E A N A R R A G C T R G C L I C L
889 CTCCACATTAAGTGACCCCTAAGATGAAGAAATTTATCCCTGGCAGGTGCCACACTTATGAAGGTGAAAAGG
100 S H I K C T P K M K K F I P G R C H T Y E G E K
963 AGTCTGCTCAGGGAGGATTGGAGAGCAATTGTTGATATCCAGAGATTCCTGGCTTCAAGGATAAGGAGCCA
125 E S A Q G G I G E A I V D I P E I P G F K D K E P
1037 CTGGACCAGTTTATTGCTCAAGTGGACCTCTGTGCTGATTGCACCACTGGCTGTCTGAAGGGCCTTGCCAATGT
150 L D Q F I A Q V D L C A D C T T G C L K G L A N V
1111 CCAGTGTCTGACCTCCTGAAGAAGTGGCTTCCCCAGAGGTGTACCACTTTTCCAGCAAGATTCAGGGTAGGG
174 Q C S D L L K K W L P Q R C T T F A S K I Q G R

NheI (1222)

1185 TGGACAAAATCAAGGTCTGGCTGGGGACAGATGATAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGT
199 V D K I K G L A G D R •
1259 TTGGACAAACCACAACACTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATT
1333 GTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAACAAATTGCATTATTTTATGTTTCAGGTTCCAGGGGA
1407 GGTGTGGGAGGTTTTTTAAAGCAAGTAAAACCTCTACAAATGTGGTATGGAATTAATTCTAAAATACAGCATAG
1481 CAAAACCTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGG
1555 GCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTATTTTCCC

SspI (1701)

1629 AAGGTTTGAAGTACTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTTAGTAAAAATA
1703 TTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGG
1777 CCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGAACCTTTAATAGAAATTGGACAGCAA
1851 GAAAGCGAGCTTCTAGCTTATCCTCAGTCTGCTCCTCTGCCACAAAGTGCACGCAGTTGCCGCGGGTCCGG
125 D Q E E A V F H V C N G A P D R
1925 CAGGGCGAACTCCCGCCCCACGGTGTCTCGCCGATCTCGGTGATGGCCGCGCCGAGGCGTCCCGGAAGTTGG
108 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
1999 TGGACACGACCTCCGACCACTCGGCGTACAGCTCGTCCAGGCGCGCACCCACACCCAGGCCAGGGTGTGTCC
83 S V V E S W E A Y L E D L G R V W V W A L T N D

SgrAI (2129)

2073 GGCACCACCTGGTCTGACCGCGCTGATGAACAGGGTACGTCGTCGCCGACACACCGGCGAAGTCGTCCTC
58 P V V Q D Q V A S I F L T V D D R V V G A F D D E

2147 CACGAAGTCCCGGAGAACCCGAGCCGGTCGGTCCAGAACTCGACCGTCCGGGACGTCGCGCGGGTGAGCA
34 V F D R S F G L R D T W F E V A G A V D R A T L V
2221 CCGAACGGCACTGGTCAACTTGGCCATGATGGCTCCTCCTGTCAGGAGAGGAAAGAGAAGAAGGTTAGTACAA
9 P V A S T L K A M
2295 TTGCTATAGTGAGTTGTATTATACTATGCAGATATACTATGCCAATGATTAATTGTCAACTAGGGCTGCAGGT
2369 TAATTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCTTGCTGGCGTTTTTC
2443 CATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACT
2517 ATAAAGATACCAGGCGTTTTCCCTGGAAGCTCCCTCGTGCGCTCTCCTGTTCCGACCCTGCCGTTACCGGAT
2591 ACCTGTCCGCTTTCTCCCTCGGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTG
2665 TAGGTCGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCAGCCCGACCGCTGCGCCTTATCCGGTAA
2739 CTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCA
2813 GAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTA
2887 TTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAAC
2961 CACCGCTGGTAGCGGTGGTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATC
3035 CTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGT
3109 TAATTAACATTTAAATCA