



EcoRI (19)

NotI (2) XbaI (15) SdaI (29) SpeI (36)

1 CGCGCCGCTATGCATCTAGAATTCCTGCAGGGCCCACTAGTTGAGGTACCTGGTGTAGTTTTATTTTCAGTTTTATGCTGTCATTTTCTGTAATGCTAA
101 GGACTTAGGACATAACTGAATTTTCTATTTTCCACTTCTTTTCTGGTGTGTGTATATATATATGTATATATACACACACACATGTACATATATATATT
201 TTTTAGTATCTCACCTCACATGCTCCTCCTGAGCACTACCCATGATAGATGTTAAACAAAAGCAAAGATGAAATTCCAACGTCAAAATCTCCCTTCC
301 ATCTAATTAATTCCTCATCCAACATATGTTCCAAAACGAGAATAGAAAATTAGCCCAATAAGCCCAGGCAACTGAAAAGTAAATGCTATGTTGTACTTTG
NcoI (403)
401 ATCCATGGTCACAACCTATAATCTTGGAAAAGTGGACAGAAAAGACAAAAGAGTGAACCTTTAAAACCTCGAATTTATTTTACCAGTATCTCCTATGAAGGG
501 CTAGTAACCAAATAATCCACGCATCAGGGAGAGAAAATGCCTTAAGGCATACGTTTTGGACATTTAGCGTCCCTGCAAATTTCTGGCCATCGCCGCTTCTCT
601 TTGTCATCAGAAGGCAGGAAACTTTATATTGGTGACCCGTGGAGCTCACATTAACCTATTTACAGGGTAACTGCTTAGGACCAAGTATTATGAGGAGAATT
701 TACCTTTCCCTCTCTTTTCAAGAAACAAGGAGGGGGTGAAGGTACGGAGAACAGTATTTCTTCTGTTGAAAGCAACTTAGCTACAAAGATAAATTAC
801 AGCTATGTACTACTGAAGGTAGCTATTTTATTCCACAAAATAAGAGTTTTTTAAAAGCTATGTATGTATGTGCTGCATATAGAGCAGATATACAGCCTAT
901 TAAGCGTCTGCTACTAAAACATAAAACATGTCAGCCTTTCTAACCTTACTCGCCCCAGTCTGTCCCGACGTGACTTCTCGACCCTTAAAGACGTACAG
1001 ACCAGACACGGCGCGGGGAGAGGGGATTCCCTGCGCCCCGGACCTCAGGGCCGCTCAGATTCTGGAGAGGAAGCCAAGTGCCTTCTGCCCT
1101 CCCCCGGTATCCCATCAAGGCGATCAGTCCAGAAGTGGCTCTCGGAAGCGCTCGGGCAAAGACTGCGAAGAAGAAAAGACATCTGGCGGAAACCTGTGC
1201 GCCTGGGGCGGTGGAACCTCGGGGAGGAGGGAGGATCAGACAGGAGAGTGGGGACTACCCCTCTGCTCCCAAATTTGGGCGAGCTTCTGGGTTTCCG
1301 ATTTTCTCATTTCGGTGGGTAAAAAACCTGCCCCACCGGGCTTACGCAATTTTTTAAAGGGGAGAGGAGGAAAAATTTGTGGGGGTACGAAAAGGC
1401 GGAAAGAACAGTCATTTTCGTCACATGGGCTTGGTTTTTTCAGTCTTATAAAAAGGAAGTTCTCTCGGTTAGCGACCAATTGTCATACGACTTGCAGTGAG
1501 CGTCAGGAGCACGTCAGGAACCTCCTCAGCAGCGCTCCTCAGTCCACAGCCAGACGCCCTCAGACAGCAAAGCTACCCCGCGCCGCGCCCTGCC

BspHI (1608)

1601 GCCGCTGTCATGATGGAATCAAGGTGCTGTTTGCCTCATCTGTATTGCTGTTGCTGAGGCAAAACCCACTGAAATCAATGAAGACCTCAATATAGCTG
M M 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 N I A

BglII (1726)

1701 CTGTGGCCTCCAACCTTTGCCACCACAGATCTTGGACTGACCTGTTACCAACTGGGAGACCATGAATGTGATTAGCACTGACACAGAGCAGGTGAACAC
31A V A S N F A T T D L E T D L F T N W E T M N V I S T D T E Q V N T
1801 AGATGCTGACAGGGGCAAGCTGCCTGGCAAAAACCTCCCCCAGATGTCCTGAGGGAGCTGGAGGCCAATGCCAGAAGGGCTGGTTGCACAAGAGGCTGC
64D A D R G K L P G K K L P P D V L R E L E A N A R R A G G C T R G G C
1901 CTCATTTGCCTCTCCACATTAAGTGCACCCCTAAGATGAAGAAATTTATCCCTGECAGGTGCCACACTTATGAAGGTGAAAAGGACTCTGCTCAGGAG
98L I C L S H I K C T P K M K K F I P G R C H T Y E G E K E S A Q G

EcoRV (2023)

2001 GGATTGGAGAGGCAATTTGTTGATATCCAGAGATTCCTGGCTTCAAGGATAAGGAGCCACTGGACCAGTTTATTGCTCAAGTGGACCTCTGTGCTGATTG
131G I G E A I V D I P E I P G F K D K E P L D Q F I A Q V D L C A D C
2101 CACCCTGGCTGTCTGAAGGGCTTGCATGTCAGTGTCTGACCTCCTGAAGAAGTGGCTTCCCGAGAGGTGTACCACCTTTTCCAGCAAGATTACAG
164T T G C L K G L A N V Q C S D L L K K W L P Q R C T T F A S K I Q

NheI (2245)

2201 GGTAGGGTGGACAAAATCAAGGGTCTGGCTGGGACAGATGATAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTGGACAAACCACAAC TAG
198G R V D K I K G L A G D R
2301 AATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAACATTGC
2401 ATTCATTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGTTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTAATCTAAAATACAGCA
2501 TAGCAAACTTTAACCTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCT
2601 GTTTGCAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGATTTTTCCCAAGGTTTGAAGTACTCTTCAATTTCTTTATGTTTTAAATGCACTGACCT

SspI (2724)

2701 CCCACATTCCTTTTTAGTAAAAATTCAGAAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAAATCCAGATGCTCAAGGC
2801 CCTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCAGGCTTCTAGCTTATCTCAG
125
2901 TCCTGCTCCTCTGCCACAAAGTGCACGCGAGTTGCCGGCCGGTTCGCGCAGGGCGAACTCCC GCCCCACGGCTGCTCGCGATCTCGGTCTATGGCCGGCC
123D Q E E A V F H V C N G A P D R L A F E R G W P Q E G I E T M A P G
3001 CGGAGGCGTCCCGAAGTTCGTGGACACGACCTCCGACCCTCGCGGTACAGCTCGTCCAGGCGCGCACCCACACCAGGCGAGGTGTTGTCGGGCAC
90S A D R F N T S V V E S W E A Y L E D L G R V W V W A L T N D P V

SgrAI (3152)

3101 CACCTGGTCTGGACCGCGCTGATGAACAGGGTACGTCGTCGCCGACCAACCCGGCGAAGTCTCCTCCACGAAGTCCCGGAGAAACCCGAGCCGGTGC
57V Q D Q V A S I F L T V D D R V V G A F D D E V F D R S F G L R D
3201 GTCCAGAAGTTCGACCGCTCCGGCGACGTCGCGCGGGTGAACGACCGGACGCTGGTCAACTTGGCCATGATGGCTCCTCTGTCAGGAGAGGAAAGA
23T W F E V A G A V D R A T L V P V A S T L K A M
3301 GAAGAAGGTAGTACAATTGCTATAGTGAGTTGTATTACTATGCAGATATACTATGCCAATGATTAATTTGCAAACTAGGGCTGCAGGTTAATTAAGA
3401 ACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGCCGCTTGTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAA

3501 TCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCGCTCTCCTGTTCCGACCCTG
3601 CCGCTTACCGGATACCTGTCCGCCTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTTCGCT
3701 CCAAGCTGGGCTGTGTGCACGAACCCCCGTTAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATC
3801 GCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGA
3901 AGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTG
4001 GTTTTTTTGTTCGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTCTACGGGGTCTGACGCTCAGTGGAACGAAAA
4101 CTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCA