



SdaI (29)

NotI (2) EcoRI (19) XbaI (15)

NcoI (89)

1 GCGGCGCTATGCATCTAGAATTCTGCAGGGCCACTAGGTCGTTGCATGTATCCGATTTTCAGACTGCACACTGCTATTGGATAACCATGGGGCTC
101 TCAGCATTCCTGCAGTCTTTGTCTCTCCATGTCACGTGGCTCTGTTACCCAGTCTTTTTCCGTCCTGTCTCTTAAAAGTGTTCCTTTCTG
201 GACCTGTCTCTCCTCCATGTATATGCTTATATAAAAAGCTGCATAGGATAGAAAACACATGGTATTGTCTTTCTGAGTTACTTCACATAATATAGTAA

EcoRV (334)

301 CTTCCAGAGTGCTTTGGCCAGTCACTCTGGATATCTGCCAGTGAGAGAGGTGAAAGAAAAACCAGGAGAGTGAACAAGGGCTTCCATTTCTCATGTG
401 CCGTCAATTTCTAACTAGTTGCTCTGTCTCAGACCGTCAGGCAAGCACTTTACCACTGAGCACCGTCTTAGCCCAAATGAGTGTGAGTAGAGATTTA
501 AAGTTTTTTTTTTTTTAAACAGTGTGGAGATTGGATCCACGGCCTCTGGCCCGCATTTTACCACTGAGCTACACTCCCAAAGCAGTCGAAATCACA
601 GTGGCCAGGATTGAAATGATCACTTAGATGCTTTGCAGTCTTGATAAGACACTAAATCTTTGTCTATCAGTTACTTCATCTTAAACAGAACGTA
701 TAGGAATTTTATGAGCATTGTTAGTTAGCATGACACATGCTATATGTATTGCTATTGAATAATGTAACCACAGCAATTACATTGTACTTTTTATTAT
801 AAAAGGGGGAGGGGAAGGCTGGTCTTTTTAACTTCTGAGAGGTTTCGATTACTAAGTAAGACCTTATGTAGACTTCCATTTGGGAGCTGAGAAAGC

XbaI (935) EcoRI (953)

SphI (1002)

901 AGAGGATCCAAAAGGGGATGACATTTGCAAAGTCTAGAAAAGGCGCTGGGAATTTACCGGGTAGGGGAGCGCTTTTCCCAAGCAGTCTGGAGCA

AgeI (1073)

1001 TGGCTTTAGCAGCCCCGCTGGCCACTTGGCGCTACACAAGTGGCTCTGGCTCGCACATTCCACATCCACCGTAGGCGCCAACCGGCTCCGTTCT
1101 TTGGTGGCCCTTCGCCACCTTCTACTCTCCCTAGTCAGGAAGTTCGCCCGCCGAGCTCGCGTCTGCAGGACGTGACAAATGGAAGTAGC
1201 ACGTCTCACTAGTCTCGTGAGATGGACAGCACCGCTGAGCAATGGAAGCGGTAGGCTTTGGGGCAGCGGCAATAGCAGCTTGTCTCTTCGCTTTC

BspEI (1381)

1301 TGGGCTCAGAGGCTGGGAAGGGTGGTCCGGGGCGGGCTCAGGGCGGGCTCAGGGCGGGCGGGCGCCGAAGTCTCCGGAGCGCCGCTTCT

BspHI (1480)

1401 GCACGCTCAAAGCGCAGTCTGTGCGCTGTTCTCTCTTCCTCATCTCCGGCCTTTTCACCTCACGGTGTGCCATCATGATGGAAATCAAGGTGC
▶▶▶ M M E I K V

BglII (1598)

1501 TGTTTCCCTCATCTGTATTGCTGTTGCTGAGGCAAAACCACTGAAATCAATGAAGACCTCAATATAGCTGCTGTGGCCTCCAACCTTGGCCACCACAGA
7▶ L F A L I C I A V A E A K P T E I N E D L N I A A V A S N F A T T D
1601 TCTTGAGACTGACCTGTTACCAACTGGGAGACCATGAATGTGATTAGCACTGACACAGAGCAGGTGAACACAGATGCTGACAGGGGCAAGCTGCCTGGC
40▶ L E T D L F T N W E T M N V I S T D T E Q V N T D A D R G K L P G
1701 AAAAACTCCCCAGATGCTCTGAGGAGCTGGAGGCAATGCCAGAAGGGCTGGTGCACAAGAGGCTGCCTCATTGCTCTCCACATTAAGTGA
74▶ K K L 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 S H I K C

EcoRV (1895)

1801 CCCCTAAGATGAAGAAATTTATCCCTGGCAGGTGCCACACTTATGAAGGTGAAAAGGAGTCTGCTCAGGGAGGGATTGGAGAGGCAATGTTGATATCCC
107▶ T P K M K K F I P G R C H T Y E G E K E S A Q G G I G E A I V D I P
1901 AGAGATTCCTGGCTCAAGGATAAGGAGCCACTGGACCAGTTTATGCTCAAGTGGACCTCTGTGCTGATTGCACCACTGGCTGTCTGAAGGGCCTTGGC
140▶ E I P G F K D K E P L D Q F I A Q V D L C A D C T T G C L K G L A
2001 AATGTCCAGTCTGACCTCTGAAGAAGTGGCTTCCCAGAGGTGTACCCTTTTCCAGCAAGATTGAGGGTAGGGTGGACAAAATCAAGGGTCTGG
174▶ N V Q C S D L L K K W L P Q R C T T F A S K I Q G R V D K I K G L

NheI (2117)

2101 CTGGGACAGATGATAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTGGACAACCAACAATAGCAATGCAGTGAATAAATGCTTTATTTGT
207▶ A G D R •
2201 GAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATTCATTCTTTATGTTTCAGTTTCAGGGG
2301 AGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAATGTGGTATGGAATTAATTCTAAAATACAGCATAGCAAACTTTAACCTCCAATCAAGC
2401 CTCTACTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGCTGTTGCAATGTGATTAGCTGTTGACGCTCACCTTCTTTCATGGAG

SspI (2596)

2501 TTTAAGATATAGTATTTTTCCAAAGTTTGAAGTCTTCTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTTAGTAAAATATTC
2601 AGAAATAATTTAAATACATCATTGCAATGAAATAAATGTTTTTATTAGGCAGAAATCCAGATGCTCAAGGCCCTTATAATATCCCCAGTTAGTAGT
2701 TGGACTTAGGAAACAAGGAACCTTAAATAGAAATTTGACAGCAAGAAAGCGAGCTTCTAGCTTATCCTCAGTCTGCTCTGCCACAAAGTGCACGC
125▶ • D Q E E A V F H V C
2801 AGTTCCGGCCGGTCCGCGAGGCGCAACTCCCGCCCCACGGCTGCTCGCCATCTCGGTGATGGCCGGCCGAGGCGTCCCGAAAGTTCTGGACAC
114▶ N G A P 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
2901 GACCTCCGACCACTCGGCGTACAGCTGCTCCAGGCGCGCACCCACCCAGGCGAGGTTGTGTCGGCACCACTGGTCTGGACCGGCTGATGAAC
81▶ V E S W E 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

SgrAI (3024)

3001 AGGGTACGTCGTCCTCCGACCAACCGGCAAGTCTCTCCACGAAGTCCCGGGAGAACCAGCCGGTCCGTCGGAAGTGCAGCCCTCCGGCGACGT
47▶ L T V D D 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
3101 CGCGCGGCTGAGCACCAGGCAAGTGGTCAACTGGCCATGATGGCTCTCTGTGAGGAGGAAAGAGAAGGTTAGTACAATGCTATAGTG
14▶ R A T L V P V A S T L K A M
3201 AGTTGATTATACTATGAGATATACTATGCAATGATTAATTGTCAAAGTAGGGCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGC
3301 CAGGAACCGTAAAAGGCCGCTGTGCTGGCGTTTTTCCATAGGCTCCGCCCTGACGAGCATCACAATAATCGACGCTCAAGTCAAGGAGTGGCGAAAC

3401 CCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCGCTCTCCTGTTCCGACCTGCCGCTTACCGGATACCTGTCCGCTTTC
3501 TCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCC
3601 CGTTCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGG
3701 ATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCCTTGAAGTGGTGGCCTAACTACGGTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGC
3801 TGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAACACCCTGGTAGCGGTGTTTTTTTGTTCGCAAGCAGCAGATTAC
3901 GCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAACGAAAACTCACGTTAAGGGATTTTGGTCATGGCT
4001 AGTTAATTAACATTTAAATCA
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