



EcoRI (19)
NotI (2) **XbaI (15)** **SdaI (29)** **EcoNI (81)**

1 **CGGGCCGCTATGCATCTAGAATTCTGCAGGGCCACTAGTGAGCCGAGAGTAATTCATACAAAAGGAGGGATCGCCTTCGAAGGGGAGAGCCAGGG**

SphI (164)

101 **ACCGTCCCTAAATTTCTACAGACCCAAATCCCTGTAGCCGCCACGACAGCGGAGGAGCATGCGCTCAGGGCTGAGCGGGGAGAGCAGAGCACACA**

201 **AGCTCATAGACCTTGGTCGTGGGGGGAGGACCGGGGAGCTGGCGGGGCAAACCTGGAAAGCGGTGTCGTGTGCTGGCTCCGCCCTCTCCCGAGGGT**

SacII (399)

301 **GGGGGAGAACGGTATATAAGTGCAGCAGTCGCCTTGGACGTTCTTTTTCGCAACGGGTTTCCCGTCAAGCAGGTGAGGGGCGGGTGTGGCTTCCGCG**

401 **GGCCGCCGAGCTGGAGGTCCTGCTCCGAGCGGGCCGGCCCGCTGTCTGCGGGGATTAGCTGCGAGCATTCCCGCTTCGAGTTGCGGGCGGGCGG**

501 **GAGGCAGAGTGCAGGCCCTAGCGGCAACCCCTAGCCTCGCCTCGTGTCCGGCTTGGGCTAGCGTGGTGTCCGCGCCGCCCGCTGCTACTCCGGC**

601 **CGCACTCTGGTCTTTTTTTTTTTGTTGTTGTTGCCCTGCTGCCTTCGATTGCCGTTACAGCAATAGGGGCTAACAAAGGGAGGGTGCAGGGGCTTGCTCGC**

BstXI (797)

701 **CCGGAGCCCGAGAGGTCATGGTTGGGAGGAATGGAGGGACAGGAGTGGCGGCTGGGGCCCGCCGCTTCGGAGCACATGTCCGACGCCACCTGGATG**

801 **GGCGAGGCTGGGGTTTTCCCGAAGCAACCAGGCTGGGGTTAGCGTGCCGAGGCCATGTGGCCCCAGCACCCGGCACGATCTGGCTTGGCGGCGCCG**

BstAPI (948) **SacI (996)**

901 **GTTGCCCTGCCTCCCTAACTAGGGTGAAGCCATCCCGTCCGGCACCAGTTGCGTGCGTGGAAAGATGGCCGCTCCCGGGCCCTGTTGCAAGGAGCTCAA**

1001 **ATGGAGGACCGGCAGCCGGTGGAGCGGGCGGGTGAAGTACCCACACAAAGGAAGAGGGCTGGTCCCTCACCGGCTGCTGCTTCTGTGACCCCGTGG**

1101 **TCCTATCGGCCGAATAGTCACCTCGGGCTTTGAGCACGGCTAGTCGCGGGGGGGAGGGGATGTAATGGCGTTGGAGTTTGTTCACATTTGGTGGGT**

XcmI (1222)

1201 **GGAGACTAGTCAGGCCAGCCTGGCGCTGGAAGTCATTTTTGGAATTTGTCCTTGTAGTTTTGAGCGGAGCTAATTCTCGGGCTTCTAGCGGTTCAAAG**

EcoNI (1318) **BspHI (1356)**

1301 **GTATCTTTAAACCTTTTTTAGGTGTTGTGAAACCACCGCTAATCAAAGCAATCATGATGGAAATCAAGGTGCTGTTTGCCTCATCTGTATTGCTG**

1▶ M E I K V L F A L I C I A

BglII (1474)

1401 **TTGCTGAGGCAAAACCCACTGAAATCAATGAAGACCTCAATATAGCTGCTGTGGCCTCCAACCTTCCACCACAGATCTTGAGACTGACCTGTTCCACAA**

14▶ 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 L E T D L F T N

1501 **CTGGGAGACCATGAATGTGATTAGCACTGACACAGAGCAGGTGAACACAGATGCTGACAGGGGCAAGCTGCCTGGCAAAAACTCCCCAGATGCTCTG**

47▶ 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 K K L P P D V L

1601 **AGGGAGCTGGAGGCCAATGCCAGAAGGGCTGGTTGCACAAGAGGCTGCCTCATTGCTCTCCACATTAAGTGCACCCTAAGATGAAGAAATTTATCC**

81▶ 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 T P K M K K F I

1701 **CTGGCAGGTGCCACACTTATGAAGGTGAAAAGGAGTCTGCTCAGGGAGGGATTGGAGAGGCAATTGTTGATATCCCAGAGATTCTGGCTTCAAGGATAA**

114▶ 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 E I P G F K D K

1801 **GGAGCCACTGGACAGTTTATTGCTCAAGTGGACCTCTGTGCTGATTGCACCACTGGCTGTCTGAAGGGCCTTGCCAAATGTCCAGTGTCTGACCTCTG**

147▶ 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 N V Q C S D L L

NheI (1993)

1901 **AAGAAGTGGCTTCCCGAGAGGTGTACCACTTTTCCAGCAAGATTGAGGGTAGGGTGGACAAAATCAAGGGTCTGGCTGGGGACAGATGATAGCTAGCTG**

181▶ 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 A G D R •

2001 **GCCAGACATGATAAGATACATTGATGAGTTGGACAAACCACAACCTAGAATGCAGTGAATAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTA**

2101 **TTTGAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGCATTATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTTAAAGCA**

2201 **AGTAAACCTCTACAATGTGGTATGGAATTAATCTAAAATACAGCATAGCAAACTTTAACCTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGG**

▶

2301 **GATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGATTTTCCCA**

SspI (2472)

2401 **AGGTTTGAAGTACTGCTCTTCAATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTTAGTAAAATATTGAGAAATAATTTAAATACATCATTG**

2501 **CAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTCATAATATCCCCAGTTTAGTAGTTGACTTAGGGAACAAAGGAACCT**

2601 **TTAATAGAAATTTGACAGCAAGAAAGCGAGCTTCTAGCTTATCCTCAGTCTGCTCTGCCACAAAGTGCACGCAAGTTGCCGGCCGGTGCAGGCG**

125▶ • D Q E E A V F H V C N G A P D R L A

2701 **CGAACTCCCGCCCCACGGTGTCTCGCCGATCTCGGTGATGGCCGGCCGGAGGCGTCCCGGAAGTTCGTGGACACGACCTCCGACCACTCGGCGTACAG**

106▶ 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 A Y L

SgrAI (2900)

2801 **CTCGTCCAGGCGCGCACCCACCCAGGCCAGGGTGTGTCGGCACCACCTGGTCTGGACCGCGCTGATGAACAGGGTACGTCGTCCCGGACCACA**

73▶ 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 R V V

2901 CCGCGAAGTCGTCTCCACGAAGTCCCGGAGAACCCGAGCCGGTCGGTCCAGAACTCGACCGCTCCGGGACGTCGCGCGGGTGAGCACCGAACGG
39 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 V P V A
3001 CACTGGTCAACTTGCCATGATGGCTCCTCCTGTCAGGAGAGGAAAGAGAAGAAGGTTAGTACAATTGCTATAGTGAGTTGTATTATACTATGCAGATAT
6 S T L K A M
3101 ACTATGCCAATGATTAATTGTCAA ACTAGGGCTGCAGGTTAATTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCTT
3201 GCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAGATACCAG
3301 GCGTTTCCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCGACCCTGCCGTTACCGGATACCTGTCCGCCTTCTCCCTTCGGGAAGCGTGCGCTT
3401 CTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTTCAGCCGACCGCTGCGCCTT
3501 ATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGC
3601 GGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAA
3701 GAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGA
3801 AGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCA