



EcoRI (23)

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

1 **GCGGCCGCGTCGACGATATCTAGAATTCGGATCCTGCAGGGCCCACTAGTTGGCCAACACAAACACAGTAGGAA**
 75 **GATATCCAACACTATCAAAAACATCACCTCTCTAGGCAATAATTTTTTATCAAACACTGTTTCTGAATGAAGT**
 149 **GAATTTTTTTTTAAGGTTAGGGAGAATAAGGCTAGTTATGGAAAATAACTATTACCTTTTGATCCGTTGCCAT**
 223 **AACATACTTTCTGTAAACATGGACAGAAAAAGTTTTTAAAAGGTACATTTGAAAACAAATCTTTCTAGTGAT**
 297 **ACATCCCGTGAAAAGAGTTGCTGATCAAATGATAAAAGCTATGTAACAGCAGGGGAAAATACCTTAAAGCAA**

SacI (406)

371 **TGCTGTGGACACTTAGCATTCCGATGAAGTGGAGCTCAGCATCTGTCCCTGGGAAAGGCGAGTGCCAGGGGCTC**
 445 **CTGTGACTGCAGAACCCGGAGGGTAGTTCCATGAAAGACTTCAACCTAATTCACCAGTACAGATGTGGACCTT**

AgeI (563)

519 **GACAGAGGACACTCATTTCAAAAATAGAAGAAATTAATTAACCGGTAGCTGTGTGCGTCTGCTGAGCAGC**
 593 **GAGCACGTCAGACTGCGCCCCAGTGGGAGAGGTTAGGGGATCCCTTAGTTAGGACCTTAGATCCCGGGAGGG**
 667 **GAAGCTGTGACACTCTTGAGCTTTTAGCCCCACTGGATGCGCGACTGGGAGGAAACCGGAGACCCCAAAGAG**
 741 **CGCCAGACTAGGCGCAGACTCAGCGAACACAGGGCGCCTGGAGGGATGGAGAGGGCGGTGCAGCTCTCTGGC**
 815 **ACCACCTGGGGCAGCAAGGGCAGCTTCCCGCTTCCCTCGTCTCTCATTTGCGTGGGTAAAAGCCTGCCGCTG**
 889 **CGGTTCTTGCGCAACTACTGAAGCAGAGAGGGGAAAAGTTGGTGGGGTTGGGAAAAGCCTAAGCGGAAAAGA**

BbrPI (982)

963 **CAGAGTCACTACGTACGTGAGTCCGCTTTACAGACTTAAAAGCAAGGTTCTCCCATTAGCAGCCAGTT**
 1037 **GTCAAAGTGCAGCTAAGAGCTTCAGGAGTCACTGAGTCTGCTCACGAAGGAAGTCTAGCAGCTGCATCCTGC**

NcoI (1155)

1111 **CAGCTCCACCGCCACCACTACTGCCACCTCCGCTGCCACCTCTGCCATGGAAATCAAGGTGCTGTTTGCCTCA**
 1185 **TCTGTATTGCTGTTGCTGAGGCAAAACCCACTGAAATCAATGAAGACCTCAATATAGCTGCTGTGGCCTCCAAC**
 10▶ **ICIAVAEAKEPTEINEDLNIAAVASN**

BglII (1270)

1259 **TTTGCCACCACAGATCTTGAGACTGACCTGTTACCAACTGGGAGACCATGAATGTGATTAGCACTGACACAGA**
 35▶ **FATTDLETDLFTNWETMNVISTDTE**
 1333 **GCAGGTGAACACAGATGCTGACAGGGCAAGTGCCTGGCAAAAACTCCCCAGATGCTCTGAGGGAGCTGG**
 59▶ **QVNTDADRGLPKKLPDPVLRRL**
 1407 **AGGCCAATGCCAGAAGGCTGTTGCACAAGGCTGCCTCATTTGCCTCTCCACATTAAGTGCACCCCTAAG**
 84▶ **EANARRAGCTRGLICLSHIKCTPK**
 1481 **ATGAAGAAATTTATCCCTGGCAGGTGCCACACTTATGAAGGTGAAAAGGAGTCTGCTCAGGGAGGGATTGGAGA**
 109▶ **MKKFIPGRCHTYEGEKESAGGIGE**
 1555 **GGCAATTGTTGATATCCAGAGATTCTGGCTTCAAGGATAAGGAGCCACTGGACCAGTTTATTGCTCAAGTGG**
 133▶ **AIVDIP EIPGFKDK EPLDQFIAQV**
 1629 **ACCTCTGTGCTGATTGCACCACTGGCTGTCTGAAGGGCCTTGCCAATGTCCAGTCTGCTGACCTCCTGAAGAAG**
 158▶ **DLCADCTTGCLKGLANVQCSDLLKK**
 1703 **TGGCTTCCCCAGAGGTGTACCCTTTGCCAGCAAGATTCAAGGGTGGACAAAATCAAGGGTCTGGCTGG**
 183▶ **WLPQRC TTFASKIQGRVDKIKGLAG**

NheI (1789)

1777 **GGACAGATGATAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAAGTAAATGCA**
 207▶ **DR •**
 1851 **GTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAAC**
 1925 **AAGTTAACAACAACAAATTCATTCTTTTATGTTTCAGGTTCAAGGGGAGGTGTGGGAGGTTTTTTAAAGCAAG**

1999 TAAACCTCTACAAATGTGGTATGGAATTAATTCTAAAATACAGCATAGCAAACCTTTAACCTCCAATCAAGC
 2073 CTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGT
 2147 TTGCAGCCTCACCTTCTTTCATGGAGTTTAAGATATAGTGTATTTTCCAAGGTTTGAAGTCTCTTCAATTC

SspI (2268)

2221 TTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTTAGTAAAATATTCAGAAATAATTTAAATACATCAT
 2295 TGCAATGAAAATAAATGTTTTTATTAGGCAGAAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAG
 2369 TAGTTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTATCCTC
 125 ↓ •

2443 AGTCCTGCTCCTCTGCCACAAAGTGCACGCAGTTGCCGGCCGGGTCGCGCAGGGCGAACTCCCGCCCCACGGC
 124 ↓ D Q E E A V F H V C N G A P D R L A F E R G W P
 2517 TGCTCGCCGATCTCGGTTCATGGCCGGCCGGAGGCGTCCCGAAGTTCGTGGACACGACCTCCGACCACTCGGC
 99 ↓ 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
 2591 GTACAGCTCGTCCAGGCCGCGACCCACACCCAGGCCAGGGTGTGTCCGGCACCACCTGGTCTGGACCGCGC
 75 ↓ 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

SgrAI (2696)

2665 TGATGAACAGGGTCACGTCGTCCCGGACCACCGCGAAGTCGTCTCCACGAAGTCCCGGAGAACCCGAGC
 50 ↓ I F L T V D D R V V G A F D D E V F D R S F G L
 2739 CGGTCCGTCCAGAACTCGACCGCTCCGGCGACGTGCGCGCGGTGAGCACCGGAACGGCACTGGTCAACTTGGC
 25 ↓ R D T W F E V A G A V D R A T L V P V A S T L K A
 2813 CATGATGGCTCCTCCTGTGACGAGAGGAAAGAGAAGAAGTTAGTACAATTGCTATAGTGAGTTGATTATAC
 1 ↓ M ←

2887 ATGCAGATATACTATGCCAATGATTAATTGTCAAACTAGGGCTGCAGGTTAATTAAGAACATGTGAGCAAAGG
 3035 CCAGCAAAGGCCAGGAACCGTAAAAGGCCGCGTGTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGC
 3109 GGAAGCTCCCTCGTGGCTCTCCTGTTCCGACCTGCCGTTACCGGATACCTGTCCGCCTTCTCCCTTCGGG
 3183 AAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGTTCGCTCCAAGCTGGGCT
 3257 GTGTGCACGAACCCCGTTCAGCCCAGCCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTA
 3331 AGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTAC
 3405 AGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGC
 3479 CAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTT
 3553 GTTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGA
 3627 CGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCA