



EcoRI (19)
NotI (2) **XbaI (15)** **SdaI (29)** **Acc65I (66)**
1 GCGGCCGCTATGCATCTAGAATTCTGCGAGGGCTGAAATAACCTCTGAAAGAGGAACTTGTTAGGTACCTTC
75 TGAGGCTGAAAGAACCAGCTGTGGAATGTGTGCAGTTAGGGTGTGAAAGTCCCCAGGCTCCCCAGCAGGCAG
149 AAGTATGCAAAGCATGCATCTCAATTAGTCAGCAACCAGGTGTGAAAGTCCCCAGGCTCCCCAGCAGGCAGAA
223 GTATGCAAAGCATGCATCTCAATTAGTCAGCAACCATAGTCCC ACTAGTCCGCCAGAGCGCGGAGGGCCTCC
NotI (299)
297 AGCGGCCGCCCTCCCCACAGCAGGGGCGGGGTCCCGCGCCACCAGGAAGGAGCGGGCTCGGGGCGGGCGGG
371 CTGATTGGCCGGGGCGGCTGACGCCGACGCGGTATAAGAGACCACAAGCGACCCGAGGGCCAGACGTTCT
HindIII (451) **SacII (495)**
445 TCGCCGAAGCTTGCCGTCAGAACGCAGGTGAGGGGCGGGTGTGGCTTCCGCGGGCCCGAGCTGGAGGTCTGT
519 CTCCGAGCGGGCCGGGCCCGTGTCTGTCGGCGGGATTAGCTGCGAGCATTCCCGCTTCGAGTTGCGGGCGGC
593 GCGGGAGGAGAGTGCAGGCTAGCGCAACCCGTAGCCTCGCTCGTGTCCGGCTTGAGGCTAGCGTGGT
667 GTCCGCGCCGCCCGCGTGTACTCCGGCCACTCTGGTCTTTTTTTTTTTTGTGTGTTGCCCTGTCTGCC
741 TTCGATTGCCGTTAGCAATAGGGGCTAACAAAGGAGGGTGCGGGCTTGTCTGCGCCGAGCCCGAGAGGTC
815 ATGTTGGGGAGGAATGGAGGGACAGGAGTGGCGGCTGGGGCCCGCCCTTCGGAGCACATGTCCGACGCCA
889 CCTGGATGGGCGAGGCTGGGTTTTTCCGAAGCAACAGGCTGGGTTAGCGTCCGAGGCCATGTGGCCC
963 CAGACCCGGCACGATCTGGCTTGGCGGCCGCGTTGCCCTGCCTCCCTAACTAGGGTGAGGCCATCCCGTCC
1037 GGCACCAGTTGCGTGCCTGGAAGATGGCCGCTCCCGGCCCTGTTGCAAGGAGCTCAAATGGAGGACGCGGC
1111 AGCCCGTGGAGCGGGCGGGTGTGAGTACCCACACAAAGGAAGAGGGCTGGTCCCTCACCGGCTGCTGCTTCT
1185 GTGACCCGTTGCTCTATCGCCGCAATAGTCACCTCGGGCTTTTGTAGCACGGCTAGTCCGCGGGGGGAGGG
1259 GATGTAATGGCGTTGGAGTTGTTCCACATTTGGTGGGTGGAGACTAGTCAGGCCAGCTGGCGCTGGAAGTCAT
1333 TTTTGAATTTGCCCTTGTAGTTTTGAGCGGAGCTAATCTCGGGCTTCTAGCGGTTCAAAGGTATCTTTTA
EcoNI (1414) **BspHI (1452)**
1407 AACCTTTTTTAGGTGTTGTGAAAACCACCGTAATTCAAAGCAATCATGATGGAAATCAAGGTGCTGTTTGCC
1481 CTCATCTGTATTGCTGTTGCTGAGGCAAAACCACTGAAATCAATGAAGACCTCAATATAGCTGCTGTGGCCTC
10 ▶ Leu l leCys l leA laVa lA laG luA laLysP roTh rG lu l leAsnG luAspLeuAsn l leA laA laVa lA laSe
BglII (1570)
1555 CAACTTTGCCACCACAGATCTTGAGACTGACCTGTTACCAACTGGGAGACCATGAATGTGATTAGCACTGACA
34 ▶ rAsnPheA laTh rTh rAspLeuG luTh rAspLeuPheTh rAsnT rpG luTh rMe tAsnVa l l leSe rTh rAspT
1629 CAGAGCAGGTGAACACAGATGCTGACAGGGGCAAGCTGCCTGGCAAAAACCTCCCCCAGATGCTCTGAGGGAG
59 ▶ h rG luG lnVa lAsnTh rAspA laAspA rG lylLysLeuP roG lylLysLysLeuP roP roAspVa lLeuA rG lu
1703 CTGGAGGCCAATGCCAGAAGGGCTGTTGCACAAGAGGCTGCCTCATTTGCCTCTCCACATTAAGTGACCCCC
84 ▶ LeuG luA laAsnA laArgA rG laG lylCysTh rArg lylCysLeu l leCysLeuSe rH is l leLysCysTh rP r
1777 TAAGATGAAGAAATTTATCCCTGGCAGGTGCCACACTTATGAAGGTGAAAAGGAGTCTGCTCAGGGAGGGATTG
108 ▶ oLysMe tLysLysPhe l leP roG lylA rG CysH isTh rTy rG luG lylG luLysG luSe rA laG lnG lyl l leG
1851 GAGAGGCAATTTGATATCCAGAGATTCTGGCTTCAAGGATAAGGAGCCACTGGACCAGTTTATTGCTCAA
133 ▶ lylG luA la l leVa lAsp l leP roG lu l leP roG lylPheLysAspLysG luP roLeuAspG lnPhe l leA laG ln
1925 GTGGACCTCTGTGCTGATTGCACCACTGGCTGTCTGAAGGCGCTTGCCAATGTCCAGTGTCTGACCTCTGAA
158 ▶ Va lAspLeuCysA laAspCysTh rTh rG lylCysLeuLysG lylLeuA laAsnVa lG lnCysSe rAspLeuLeuLy
1999 GAAGTGGCTTCCCAGAGGTGTACCACTTTTCCAGCAAGATTCAGGGTAGGGTGGACAAAATCAAGGTCTGG
182 ▶ sLysT rpLeuP roG lnA rG CysTh rTh rPheA laSe rLys l leG lnG lylA rG Va lAspLys l leLysG lylLeuA

NheI (2089)

2073 CTGGGGACAGATGATAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAA
207 ▶ laG lyAspArg●●●
2147 TGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAAT
2221 AAACAAGTTAACAAACAATTGCATTCATTTATGTTTCAGGTTCCAGGGGAGGTGTGGGAGGTTTTTTAAAG
2295 CAAGTAAACCTCTACAAATGTGGTATGGAATTAATTCTAAAATACAGCATAGCAAAACTTTAACCTCCAATC
2369 AAGCCTCTACTTGAACTCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAG
2443 CTGTTTGCAGCCTCACCTCTTTTCATGGAGTTAAGATATAGTGTATTTTCCAAGGTTTGAAGTACTGCTTTCA

SspI (2568)

2517 TTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTTAGTAAAATATTCAGAAATAATTTAAATACA
2591 TCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCCAGT
2665 TTAGTAGTTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTAT
2739 CCTCAGTCCTGCTCTGCCACAAAGTGCACGCAGTTGCCGGCCGGTTCGCGCAGGGCGAACTCCCGCCCCA
125 ▶ ●●●AspG lnG luG luA laVa lPheH isVa lCysAsnG lyA laP roAspA rgLeuA laPheG luArgG lyT rp
2813 CGGCTGCTCGCCGATCTCGGTCATGGCCGGCCGGAGGCGTCCCGGAAGTTCGTGGACACGACCTCCGACCACT
101 ▶ P roG lnG luG ly l leG luTh rMe tA laP roG lySe rA laAspA rgPheAsnTh rSe rVa Ma lG luSe rT rpG l
2887 CGGCGTACAGCTCGTCCAGGCCGCGCACCCACACCCAGGCCAGGGTGTGTCCGGCACCACTGGTCTGGACC
76 ▶ uA laTy rLeuG luAspLeuG lyArgVa lT rpVa lT rpA laLeuTh rAsnAspP roVa Ma lG lnAspG lnVa lA

SgrAI (2996)

2961 GCGCTGATGAACAGGGTCACGTCGTCGCCGACCACACCGCGAAGTCGTCCTCCACGAAGTCCCGGGAGAACC
51 ▶ laSer l lePheLeuTh rVa lAspAspA rgVa Ma lG lyA laPheAspAspG luVa lPheAspA rgSe rPheG ly
3035 GAGCCGGTCGGTCCAGAAGTCCGACCGCTCCGGCGACGTCGCGCGCGGTGAGCACCGGAACGGCACTGGTCAACT
27 ▶ LeuArgAspTh rT rpPheG luVa lA laG lyA laVa lAspA rgA laTh rLeuVa lP roVa lA laSe rTh rLeuLy
3109 TGGCCATGATGGCTCCTCTGTCCAGGAGAGAAAGAGAAGAAGTTAGTACAATTGCTATAGTGAGTTGTATTA
2 ▶ sA laMe t
3183 TACTATGCAGATATACTATGCCAATGATTAATTGTCAAACTAGGGCTGCAGGTTAATTAAGAACATGTGAGCAA
3257 AAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGCCGCGTGTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGAC
3331 GAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCC
3405 CCCTGGAAGCTCCCTCGTGCCTCTCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTT
3479 CGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTG
3553 GGCTGTGTGCACGAACCCCGTTCAGCCCGACCGTGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCC
3627 GGTAAGACACGACTTATCGCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTG
3701 CTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTG
3775 AAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTT
3849 TTTTGTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGT
3923 CTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCA