



100

1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTCGGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGCGGGGTAAACTGGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTTCCCGAGGGTGGGGGAGAACCGTATATAAGTGCAGTAGTCGCC
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTCACGCGCCCGCCCTACCTGAGGCC
301 GCCATCCACGCCGTTGAGTCCGCTTCTGCCGCTCCCGCTGTGGTGCCTCTGAAGCTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTCCTGACCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

BspHI (560)
AgeI (552)

501 TCTGTTCTGCGCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTCATCATGACTCCAAGCTGGCCGTGGCTCTTTGGCAGCCTT
1 M T S K L A V A L L A A F
601 CCTGATTTCTGCAGCTCTGTGTGAAGGTGCAGTTTTGCCAAGGAGTGCTAAAGAACTTAGATGTCAGTGCATAAAGACATACTCCAAACCTTTCCACCCC
13 L I S A A L C E G A V L P R S A K E L R C Q C I K T Y S K P F H P
701 AAATTTATCAAAGAACTGAGAGTGATTGAGAGTGGACCACACTGCGCCAACACAGAAATTATTGTAAGCTTTCTGATGGAAGAGAGCTCTGTCTGGACC
47 K F I K E L R V I E S G P H C A N T E I I V K L S D G R E L C L D

NheI (862)

801 CCAAGGAAAACCTGGGTGCAGAGGGTTGTGGAGAAGTTTTGAAGAGGGCTGAGAATTCATAAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTT
80 P K E N W V Q R V V E K F L K R A E N S •
901 TGGACAAAACCAACTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAA

1001 GTTAAACAACAACAAATTGCATTCATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTTAAAGCAAGTAAACCTCTACAATGTGGTATGGAAT
1101 TCTAAAATACAGCATAGCAAACTTTAACTCCAAATCAAGCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCC
1201 AATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTCATGGAGTTAAGATATAGTGATTTTCCCAAGGTTGAACTAGCTCTTCATTTCTTTATGTTTT
1301 AAATGCACTGACCTCCACATTCCTTTTTAGTAAATATTAGAAATAATTTAAATACATCATTGCAATGAAAAAATGTTTTTTATTAGGCAGAATC
1401 CAGATGCTCAAGGCCCTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTAAATAGAAATTGGACAGCAAGAAAGCGAGCTTC

1501 TAGCTTTAGTTCCTGGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCATCTCAATGAGCACAAAGCAGTCAGGAGCAT
141 • N R T Y K L P I L E E I T T K V L K G N M E I L V F C D P A Y
1601 AGTCAGAGATGAGCTCTGCACATGCCACAGGGGTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTG
109 D S I L E R C M G C P S V V R I S R D V E D S Y P H R V A V I T D
1701 AAAGTCTTCTGCCGTTGCTCAGCAGACCCAATGGCAATGGCTTTCAGCAGACAGTACCTGCAATGTAGGCTCAATGTGGACAGCAGAGATG
76 F D K Q G N S V A S G I A I A E A C V T V R G I Y A E I H V A S I
1801 ATCTCCCAGTCTTGGTCTGATGGCCGCCGACATGGTGTGTTGTCTCATAGAGCATGGTATCTTCTCAGTGGCGACCTCCACCAGCTCCAGAT
42 I E G T K T R I A A G V H H K N D E Y L M T I K E T A V E V L E L D
1901 CCTGCTGAGAGATGTTGAAGTCTTATGGTGGCCCTCTATAGTGTGATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGC
9 Q Q S I N F T K M
2001 GTGGATGGCGTCTCCAGTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCTACCGCCATTTGCGTCAATGGGGC

2101 GGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCA
2201 AACCGTATCCACGCCATTGATGTAAGTCCCGTTCATCATGGAATAGCGATGACTAATACGTAGATGTAAGTCCCGTTCAGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCA
2301 AGGTCACTGACTGGGCATAATGCCAGGCGGGCATTACCCTGATTGACGTCAATAGGGGGGCTACTTGGCATATGATACACTTGTACTGCAAGTG
2401 GGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGAAAGTCCCTATTGGCGTACTATGGGAACATACGTCAATATTGACGTCAATGGGGGGGG
2501 TCGTTGGGCGGTGAGCCAGGCGGGCATTACCCTGAAAGTATGTAACGCTGAGGTTAATAAGAACATGTGAGCAAAAGCCAGCAAAAGGCCAGGAA
2601 CCGTAAAAAGGCCGCTTGTGGCTTTTTCCATAGGCTCCGCCCTGACGAGCATCAGAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACA

2701 GGACTATAAGATACCAGGCTTTCCCTGGAAGTCCCTCGTGGCTCTCTGTTCCGACCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTT
2801 CGGAAGCGTGGCGCTTCTCATAGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTGCTTCGCTCAAGCTGGGCTGTGTGACGAACCCCGTTC
2901 GCGGACCGCTGCGCTTATCCGGTAACTATCGTCTTGTAGTCCAAACCGTAAAGACACGACTTATCGCACTGGCAGCAGCCACTGGTAACAGGATTAGC
3001 AGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGC
3101 CAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGTATCCGGCAAACAAACCCGCTGGTAGCGGTGGTTTTTTTGTGCAAGCAGCAGATTACGCGCAG

3201 AAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACACGTTAAGGGATTTTGGTCATGGCTAGTTAA

3301 TTAACATTTAAATCAGCGGCCGCAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGGTTTTTGTGTAATCGTAACTAACATACGCTCTCCATCA

3401 AAACAAACGAAACAAACAAACTAGCAAAATAGGCTGTCCCGTCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA