



100

1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATGCCACAGTCCCGAGAAGTTGGGGGAGGGTTCGGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGCGGGTAAACTGGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTTCCCGAGGGTGGGGGAGAACCGTATATAAGTGCAGTAGTCGCC
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTCACGCGCCCGCCCTACCTGAGGCC
301 GCCATCCACGCGGTTGAGTCGCGTTTGC CGCCTCCCGCCTGTGGTGCTCTGAACTGCGTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTCCTGACCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

BspHI (560)
AgeI (552)

501 TCTGTTCTGCGCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTCATGAGAATGGAGGATGAAGATTACAACACTTCCATCAG
13 M R M E D E D Y N T S I S
601 TTACGGTGATGAATACCCTGATTATTTAGACTCCATTGTGTTTTGGAGGACTTATCCCCCTTGAAGCCAGGGTACCAGGATCTTCTGGTGGTGGTC
13 Y G D E Y P D Y L D S I V V L E D L S P L E A R V T R I F L V V V
701 TACAGCATCGTCTGCTTCTCGGATTCTGGCAATGGTCTGGTGATCATCATTGCCACCTTCAAGATGAAGAAGACAGTGAACATGGTCTGGTTCCTCA
47 Y S I V C F L G I L G N G L V I I I A T F K M K K T V N M V W F L
801 ACCTGGCAGTGGCAGATTTCTGTTCAACGCTTCTCCCAATCCATATCACCTATGCCGCCATGGACTACCACTGGGTTTTCCGGACAGCCATGTGCAA
80 N L A V A D F L F N V F L P I H I T Y A A M D Y H W V F G T A M C K
901 GATCAGCAACTTCTTCTCATCCACAACATGTTACCAGCGCTTCTCTGCTGACCATCATCAGCTGACCGCTGCATCTGTGCTCCTCCCTGCTGG
113 I S N F L L I H N M F T S V F L L T I I S S D R C I S V L L P V W
1001 TCCGAGAACCACCGCAGCGTTGCGCTGGCTTACATGGCTGCATGGTCTGGTCTGGCTTTCTTCTGAGTTCCCCTCTCTGCTTCCGGGACA
147 S Q N H R S V R L A Y M A C M V I W V L A F F L S S P S L V F R D
1101 CAGCCAACCTGCATGGGAAAATATCCTGCTTCAACAACCTCAGCCTGTCCACACCTGGGTCTTCTGTTGGCCCACTACTCCAAATGGACCTGTGGG
180 T A N L H G K I S C F N N F S L S T P G S S S W P T H S Q M D P V G
1201 GTATAGCCGGCACATGGTGGTACTGTACCCGCTTCTCTGTGGTCTTCTGGTCCAGTCCCTCATCATCACAGTTCCTACCTCACCATCGTGTGAAA
213 Y S R H M V V T V T R F L C G F L V P V L I I T A C Y L T I V C K
1301 CTGCAGCGAACCGCTGCCCAAGACCAAGAAGCCCTCAAGATTATTGTACCATCATACCTTCTTCTGCTGGTCCCTACCACACACTCA
247 L Q R N R L A K T K K P F K I I V T I I I T F F L C W C P Y H T L
1401 ACCTCCTAGAGTCCACCACACTGCCATGCCTGGCTGTCTTCCAGCCTGGGTTTGGCCCTGGCCACTGCCCTTGCATTGCCAACAGCTGCATGAACCC
280 N L L E L H H T A M P G S V F S L G L P L A T A L A I A N S C M N P
1501 CATTCTGTATGTTTTATGGGTGAGACTTCAAGAAGTTCAAGGTGGCCCTTCTCTCGCCTGGTCAATGCTCTAAGTGAAGATACAGGCCACTTCTCC
313 I L Y V F M G Q D F K K F K V A L F S R L V N A L S E D T G H S S
1601 TACCCAGCCATAGAAGCTTTACCAAGATGTATCAATGAATGAGAGGACTTCTATGAATGAGAGGGAGACCGGCATGCTTTGATCCTCACTGTGAAAC
347 Y P S H R S F T K M S S M N E R T S M N E R E T G M L •

NheI (1700)

1701 GCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGACAAACCACAAC TAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTA
1801 TTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAACAATTGCATTCATTTTATGTTTCAGGTTACAGGGGAGGTGTGGGAGTTTT
1901 TTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCACTTGAATCCTTTTCT
2001 GAGGGATGAATAAGGCATAGGCATCAGGGGCTGTGCCAATGTGCATTAGCTGTTGCAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGTATTT
2101 CCCAAGTGTGAACTAGCTTTCATTCTTTATGTTTTAAATGCAGTACCTCCACATTCCTTTTTAGTAAAAATTCAGAAATAATTTAAATACATC
2201 ATTGCAATGAAAAATAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGA
2301 ACCTTTAATAGAAATTTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTT
141 • N R T Y K L P I L E E I T T K V L K
2401 GCCATTCACTCAATGAGCACAAAGCAGTCAAGGATGAGTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACC
122 G N M E I L V F C D P A Y D S I L E R C M G C P S V V R I S R D V
2501 TCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAAGACAGACAGTGA
88 E D S Y P H R V A V I T D F D K Q G N S V A S G I A I A E A C V T V
2601 CCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCGTCTGGTCTGATGGCCGCCGACATGGTCTTGTCTCATAGAGCAT
55 R G I Y A E I H V A S I I E G T K T R I A A G V H H K N D E Y L M
2701 GGTGATCTTCTCAGTGGCAGCTCCACCAGTCCAGATCCTGCTGAGAGATGTTGAAGGTCTTCAATGGTGGCCCTCTATAGTGGTCTATTATACTAT
22 T I K E T A V E V L E L D Q Q S I N F T K M
2801 GCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCTCTCCAGCTTATCTGACGGTTCCTAAACGAGCTCTGCTTATATAGACCTCC
2901 CACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAACAACTCCCATTGA
3001 CGTCAATGGGGTGGAGACTTGGAAATCCCGTGAAGTCAAAACCGCTATCCACGCCCATTTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGAC
3101 TAATACGTAGATGACTGCCAAGTAGGAAAGTCCATAAGGTCAATGACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGC

3201 G T A C T T G G C A T A T G A T A C A C T T G A T G T A C T G C C A A G T G G G C A G T T T A C C G T A A A T A C T C C A C C A T T G A C G T C A A T G G A A A G T C C C T A T T G G C G T T A C T A
3301 T G G G A A C A T A C G T C A T T A T T G A C G T C A A T G G G C G G G G T C G T T G G G C G G T C A G C C A G G C G G G C C A T T T A C C G T A A G T T A T G T A A C G C C T G C A G G T T A A T T
3401 A A G A A C A T G T G A G C A A A A G G C C A G C A A A A G G C C A G G A A C C G T A A A A A G G C C G C G T T G C T G G C G T T T T T C C A T A G G T C C G C C C C C T G A C G A G C A T C A C A
3501 A A A A T C G A C G C T C A A G T C A G A G G T G G C G A A A C C C G A C A G G A C T A T A A A G A T A C C A G G C G T T T C C C C C T G G A A G C T C C C T C G T G C G C T C T C T G T T C C G A C
3601 C C T G C C G C T T A C C G G A T A C T G T C C G C T T T T C C C T T C G G G A A G C G T G G C G C T T T T C A T A G C T C A C G C T G T A G G T A T C T C A G T T C G G T G T A G G T C G T T
3701 C G C T C C A A G C T G G G C T G T G T G C A C G A A C C C C C G T T C A G C C C G A C C G C T G C G C T T A T C C G G T A A C T A T C G T C T T G A G T C C A A C C C G G T A A G A C A C G A C T
3801 T A T C G C C A C T G G C A G C A G C C A C T G G T A A C A G G A T T A G C A G A G C G A G G T A T G T A G G C G G T G C T A C A G A G T T C T T G A A G T G G T G G C C T A A C T A C G G C T A C A C
3901 T A G A A G A A C A G T A T T T G G T A T C T G C G C T C T G C T G A A G C C A G T T A C C T T C G G A A A A A G A G T T G G T A G C T C T T G A T C C G G C A A C A A A C C A C C G C T G G T A G C
4001 G G T G G T T T T T T G T T T G C A A G C A G C A G A T T A C G C G C A G A A A A A A A G G A T C T C A A G A A G A T C C T T T G A T C T T T T C T A C G G G G T C T G A C G C T C A G T G G A A C G
4101 A A A A C T C A C G T T A A G G G A T T T T G G T C A T G G C T A G T T A A T T A A C A T T T A A A T C A G C G G C C G C A A T A A A A T A T C T T T A T T T T C A T T A C A T C T G T G T G T T G G T
4201 T T T T T G T G T G A A T C G T A A C T A A C A T A C G C T C T C C A T C A A A A C A A A A C G A A A C A A A A C A A A C T A G C A A A A T A G G C T G T C C C C A G T G C A A G T G C A G G T G C C A
4301 G A A C A T T T C T C T A T C G A A