



100

1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGAGAAGTTGGGGGAGGGGTCGGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGCGGGGTAAACTGGGAAAGTATGTCGTGACTGGCTCCGCCTTTTTCCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTCACGCGCCCGCCCTACCTGAGGCC
301 GCCATCCACGCCGTTGAGTCCGCTTCTGCCGCTCCCGCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC
401 GGGCCTTTGTCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTCCTGACCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

SphI (560)

AgeI (552)

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTCAGCATGCCCTGGGACTCGCTGGCTATACTGTCTGGGAT
1 M P W G L A W L Y C L G I
601 CCTACTTGACGTGGCTTTGGGAAACGAGAATTTGGAGATATGGACTCTGACCCAAGATAAGGAGTGTGACCTACAGGCTACCTTCGGGGCAAGCTGCAG
13 L L D V A L G N E N L E I W T L T Q D K E C D L T G Y L R G K L Q
701 TACAAGAACCGGCTTCAGTACATGAAACATTACTTCCCATCAACTACAGGATTGCTGTGCCCTATGAGGGGGTACTCAGAGTGGCCAACATCACAAGGC
47 Y K N R L Q Y M K H Y F P I N Y R I A V P Y E G V L R V A N I T R
801 TGCAGAAGCTCACGTGAGTGCAGAGCTTCGGTACCTGTGGTCTTGGTGTGAGTCTCAATGCCACTGAGTCTGTGATGGATGTACTTCTCGAGGGCCA
80 L Q K A H V S E R E L R Y L W V L V S L N A T E S V M D V L L E G H
901 CCCGCTCTGGAAGTATCTACAGGAGTTTACAGACATTGCTGGAGAACGTACAGCGGAGCCTCATGGCCGTTGGTGTACACCTGCCGGGACACGTAAGTGTG
113 P S W K Y L Q E V Q T L L E N V Q R S L M A V G V H L P G H V L V
1001 ACCCTGCTCAGCCAGCTGCTGGCCTCCCGCCATGGCCAGATCATTTGACACAGCTGGGAGCTTCTGATGATGAAAGGATGTGGAGATTGGCCCT
147 T L L S Q L P G L P S P W A R S F D T S W E L L M M K G C G D W P
1101 CACGTGGAAGCTGTGTTATCTCTTGTGAGTACTCCAGGCTAAGCCTGAAGCTGGTGCGGCCAAAGCCTTGTGACAACCTCTCCGGGTGATGAAAC
180 S R G S C V I S S E Y S R P K P E A G A A Q S L A G Q L L P G H G T

NheI (1255)

1201 TGCTGACTGTTCTTGTGTAACAAAGCCCATCTTAAAATGGCAGGACTGCGAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAA
213 A V L F L L •
1301 ACCACAAC TAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAA
1401 ACAACAATTGCATTCATTTTATGTTTCAGGTTCAAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAATGTGGTATGGAATTCTAAAA
1501 TACAGCATAGCAAACCTTAACTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGC
1601 ATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGTATTTCCCAAGGTTGAACTAGCTCTTCATTTCTTTATGTTTTAAATGCA
1701 CTGACCTCCACATTCCCTTTTTAGTAAATATTCAGAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGC
1801 TCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTT
141 •
1901 AGTTCCTGGTGTACTTGGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTTCATCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGA
140 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 D S
2001 GATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCC
107 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 F D
2101 TTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTGCAGCAGACAGTACCCTGCCAATGTAGGCCCTCAATGTGGACAGCAGAGATGATCTCCC
73 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 I E G
2201 CAGTCTTGGTCTGATGGCCGCCGACATGGTGTGTTGTCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGTG
40 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 Q Q
2301 AGAGATGTTGAAGTCTTCACTGGTGGCCCTCTATAGTGTGATGCTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATG
7 S I N F T K M
2401 GCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTGCGTCAATGGGGCGGAGTTG
2501 TTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAACAAACTCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCGTGTGAGTCAAACCGCT
2601 ATCCACGCCATTGATGTAAGTGCACAAACCGCATCATCATGTAATAGCGATGACTAATACGTAGATGTAAGTGCACAAAGTAGGAAAGTCCATAAAGGTCAT
2701 GTACTGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGGCTACTTGGCATATGATACTTGTACTGCAAGTGGGCGAGTT
2801 TACCGTAAATACTCCACCATTGACGTCAATGGAAAGTCCCTATTGGCGTACTATGGGAACATACGTCAATTATTGACGTCAATGGCGGGGGTGGTGG
2901 GCGGTGAGCCAGGCGGGCCATTTACCGTAAAGTATGTAACGCTGCAGGTTAATTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAA
3001 AAGGCCGCTTGTGGCGTTTTTCCATAGGCTCCGCCCTGACGAGCATCACAATAATCGACGCTCAAGTCAAGGTTGGCGAAACCCGACAGGACTAT
3101 AAAGATACCAGGCGTTTTCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCCGACCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTCGGGGAAAG

3201 CGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTCCAGCCCGAC
3301 CGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGA
3401 GGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTAC
3501 CTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAA
3601 GGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACAT
3701 TTAAATCAGCGGCCGCAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAA
3801 ACGAAACAAAACAACTAGCAAAATAGGCTGTCCCGTCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA