



100

1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTCGGCAATTGAACGGGTGCCTA  
101 GAGAAGGTGGCGCGGGGTAAACTGGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTTCCCGAGGGTGGGGGAGAACCGTATATAAGTGCAGTAGTCGCC  
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTCACGGGCCCGCCCTACCTGAGGCC  
301 GCCATCCACGCCGTTGAGTCCGCTTCTGCCGCTCCCGCTGTGGTGCCTCTGAAGCTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC  
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

**BspHI (560)**

**AgeI (552)**

501 TCTGTTCTGCGCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTCATGAGTACTCCACAGAAGCCAAGATGCAGCCTCTTAG  
1 M S D S T E A K M Q P L S  
601 CTCCATGGACGATGATGAGTTGATGGTCAGCGGCAGCAGGTATTCTATTAAGCTCCAGACTACGACCAAATCTGGAATCAAGTGTGGCAGGATGC  
13 S M D D D E L M V S G S R Y S I K S S R L R P N S G I K C L A G C  
701 TCGGGACACAGCAAGTCCCCTTGGTCTCGAGCTGCTCTCCTTCTGTTCTGGCTGGGCTCCTGCTGATCATTCTTTCCAAGTCTCCAAAACCCAA  
47 S G H S Q V P L V L Q L L S F L F L A G L L L I I L F Q V S K T P  
801 ATACCGAGAGGCAGAAGGAACAAGAGAAGATCTCCAGGAAGTACCAGCTGACAGATGAGCTTACGTCCAGGATCCCCTCTCCCAAGGGAAGAATGA  
80 N T E R Q K E Q E K I L Q E L T Q L T D E L T S R I P I S Q G K N E  
901 GTCCATGCAGGCGAAGATCACTGAGCAACTGATGCAGCTGAAAAGTGAAGTCTTCCAGGATCCCCTTCCAGGGCAGAATGATCCATACAAGAG  
113 S M Q A K I T E Q L M Q L K T E L L S R I P I F Q G Q N E S I Q E  
1001 AAGATCTCTGAGCAACTGATGCAGTGAAGGCTGAAGTCTTTCCAAGATCTCCAGCTCCCGGTAAGGATGATTCTAAGCAGGAGAAGATCTACCAAC  
147 K I S E Q L M Q L K A E L L S K I S S F P V K D D S K Q E K I Y Q  
1101 AGCTGGTACAGATGAAGACTGAAGTCTTCCGCTGTGTCGACTCTGCCCTGGGACTGGACATTCCTCTAGGAAATGTTACTTCTTCTCAAGTCCCA  
180 Q L V Q M K T E L F R L C R L C P W D W T F L L G N C Y F F S K S Q  
1201 GCGGAAGTGAAGTACGCGCTCACAGCTTCAAAGAAGTGAAGGCTCAACTAGTCAATCAATAGTGAAGAGCAGACCTTCTGCGAGCAGACTTCT  
213 R N W N D A V T A C K E V K A Q L V I I N S D E E Q T F L Q Q T S  
1301 AAGGCTAAAGGACCAACTGGATGGCCTGTGACAGCTGAAGAAGGAGGCCACGTGGCTCTGGGTAGATGGTCTACTCTGTCTCAAGTCCAGAAAT  
247 K A K G P T W M G L S D L K K E A T W L W V D G S T L S S R F Q K  
1401 ATTGGAATAGAGGGGAGCCTAACACATCGGTGAGGAAGACTGTGCGAATTTGCTGGGATGGTGAAGTACTCTAAATGTGAAGTCAAAAAGTCTG  
280 Y W N R G E P N N I G E E D C V E F A G D G W N D S K C E L K K F W

**NheI (1535)**

1501 GATCTGCAAGAAGTCTGCAACCCCATGCACTGAAGGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTGGACAAACCACAACCTAGAATGCAGTG  
313 I C K K S A T P C T E G •  
1601 AAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAACAAGTTAACAACAACATTCATTCTTT  
1701 ATGTTTCAGGTTCAAGGGGAGGTGTGGGAGTTTTTAAAGCAAGTAAACCTCTACAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTTA  
1801 ACCTCAAATCAAGCCTCTACTTGAATCCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTGCAGCCTCA  
1901 CCTTCTTCATGGAGTTAAGATATAGTGTATTTCCCAAGTTTGAAGTACTCTTCATTCTTTATGTTTTAAATGCAGTACCTCCCACATTCCTT  
2001 TTTAGTAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATC  
2101 CCCAGTTTAGTAGTTGGACTTAGGGAACAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGAGG  
141 • N R T Y K L  
2201 GGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGCGACATGC  
133 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 I L E R C M G  
2301 CACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCGTTGCTCACAGC  
100 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 K Q G N S V A  
2401 AGACCCCAATGGCAATGGCTTCAAGCAGACAGTACCTGCAATGTAGGCCTCAATGTGGACAGAGATGATCTCCAGTCTTGGTCTGATGGCC  
67 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 T K T R I A  
2501 GCCCGACATGGTGTGTTGTCTCATAGAGCATGGTGTCTTCTCAGTGGCAGCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTCTTCA  
33 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 S I N F T K M  
2601 TGGTGGCCCTCTATAGTGAAGTCTATTACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCTCTCCAGCTTATCTGAC  
0  
2701 GGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTC  
2801 CCGTTGATTTACTAGTCAAAACAAACTCCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCCTGAGTCAAACCGCTATCCACGCCATTGATGTAC  
2901 TGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGG  
3001 CGGGCCATTTACCGTATTGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGTACTGCAAGTGGGCGAGTTTACCGTAAATACTCCACCCA  
3101 TTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCAATTTGACGTCAATGGGGGGGGTGGTGGGCGGTGAGCCAGGCGGGCCA

3201 TTTACGTAAGTTATGTAACGCCTGCAGGTTAATTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTT  
3301 TTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCC  
3401 CCTGGAAGCTCCCTCGTGCCTCTCTGTCCGACCCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGAAGCGTGGCGCTTTCATAGCT  
3501 CACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCGCTGCGCCTTATCCGGTAA  
3601 CTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACA  
3701 GAGTTCTTGAAGTGGTGGCCTAACTACGGTACACTAGAAGAAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTA  
3801 GCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTGTTCGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTT  
3901 GATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGAATA  
4001 AAATATCTTTATTTTCATTACATCTGTGTGTTGGTTTTTTTGTGTAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGC  
4101 AAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA