



1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATGCCACAGTCCCGGAGAAGTTGGGGGAGGGTGGCAATTGAACGGGTGCCTA  
101 GAGAAGGTGGCGCGGGGTAAACTGGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTTCCCGAGGGTGGGGGAGAACCGTATATAAGTGCAGTAGTCGCC  
201 GTGAACGTTCTTTTTCGAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTCACGCGCCCGCCCTACCTGAGGCC  
301 GCCATCCACGCCGTTGAGTCCGCTTCTGCCGCTCCCGCTGTGGTGCCTCCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC  
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCCTGACCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

**NcoI (560)**  
**AgeI (552)**

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTCCAGTGGAGTCGCCTTTTAGTCCGGTTCCTCATGGACC  
1 M E S P F S P V L P H G P  
601 AGATGAAGACTGGGAGTCGACGTTGTTTGTGAAGTGGCTATTTACAGACACTGATGATGCACTTTGATGCAGCACATGAGGCTTATGAAAATAAT  
13 D E D W E S T L F A E L G Y F T D T D D V H F D A A H E A Y E N N  
701 TTTGATCATCTTAATTTTATTTGATTTGATGCTTTGGGAGTCAGACCTATGGAGCCCCGGCAGCCACTTCTGCTCAGACATGAAGCAGAGCCCCAGC  
47 F D H L N F D L D L M P W E S D L W S P G S H F C S D M K A E P Q  
801 CTCTTTCTCCGGTTCCTCCAGTTGCTCCATCTCCTCTCCTCGGTCCACAGACTCGTGTTCCTCAACTCAGCACGTTCTGAGGAGTTGGATTTGTTGTC  
80 P L S P A S S S C S I S S P R S T D S C S S T Q H V P E E L D L L S  
901 TAGTTCTCAGTCCCCCTTCTTATATGGCGACAGCTGTAATAGCCCCTCTGTAGAGCCACTGAAGGAAGAGAAGCCTGCTACTGGTCTGGAAC  
113 S S Q S P L S L Y G D S C N S P S S V E P L K E E K P V T G P G N  
1001 AAAACAGAACATGGACTGACTCAAAGAAAAAATTCAGATGAGTTCAAAACCTTCAGTTCAGCCAAAGCCTTTATTACTTCCAGCAGCGCCAAAGACTC  
147 K T E H G L T P K K K I Q M S S K P S V Q P K P L L L P A A P K T  
1101 AAACCAATGCCAGTGTCCAGCAAAAAGCCATCATCATTAGACTACCAGCCCTTATGCCACTGGCAAAGCAGCAGTCGATTATCAGCATAACGCCTGC  
180 Q T N A S V P A K A I I I Q T L P A L M P L A K Q Q S I I S I Q P A  
1201 GCCCACCAAAGCCAGACTGTTTTGCTCTCTCAGCCGACTGTGGTCAACTTCAGAGCCCTGCGGTTCTGTGCTGCTCAGCCGGTCTTGCAGTCACT  
213 P T K G Q T V L L S Q P T V V Q L Q S P A V L S S A Q P V L A V T  
1301 GGGGAGCCGCACAGTACCTAACCATGTGGTGAATGTGCTGCCAGCCCTGTGGTGAGCAGCCCGTGAATGGAAAACCTTCCGCTACTAAACCTGTTC  
247 G G A A Q L P N H V V N V L P A P V V S S P V N G K L S V T K P V  
1401 TACAAAGTCCACCAGAAGTATGGGTTCCGATATCGTGTGCTGAGGAGACAGCAGCGGATGATAAAGAACCGAGAGTCTGCTTGTGAGTCCGCAAGAA  
280 L Q S A T R S M G S D I A V L R R Q Q R M I K N R E S A C Q S R K K  
1501 GAAGAAAGAGTATATGCTAGGACTGGAGGCCAGGCTCAAGGCTGCCCTCTCAGAGAATGAGCAGCTGAAGAAGGAGAATGGCTCCCTGAAGCGACAGCTG  
313 K K E Y M L G L E A R L K A A L S E N E Q L K K E N G S L K R Q L  
1601 GACGAGGTGGTGTGAGAAACAGAGGCTCAAAGTCCCAAGTCCAAAGCGAAGAGTGTCTGTGATGATAGTATTAGCATTATAATGCTGAAGTATG  
347 D E V V S E N Q R L K V P S P K R A V C V M I V L A F I M L N Y  
1701 GGCCCATGAGCATGCTGGAGCAAGAATCCCGAAGPAAAACCTAGTGTGAGCCCTGCCAATCAGAGGAGGCATCTTTGGAATTTTCAGLAAAAGAAGT  
380 G P M S M L E Q E S R R V K P S V S P A N Q R R H L L E F S A K E V  
1801 TAAAGACACATCAGATGGTGACAACCAGAAAAGCAGTTACAGCTATGATCACTCTGTGTCCAATGACAAGCTTTAATGGTGTAAAGTGAAGGCCATTG  
413 K D T S D G D N Q K D S Y S Y D H S V S N D K A L M V L S E E P L  
1901 CTTTATATGCCTCCACCTCCATGTCAACCCCTGATTAACACAACAGAGTCTCTCAGGTTGAACCATGAACTTCGAGGCTGGGTTTCATAGACATGAAGTGG  
447 L Y M P P P P C Q P L I N T T E S L R L N H E L R G W V H R H E V  
2001 AAAGACCAAATCTAGAAGATGACAAATAGCCAAAGCCGCAATTCAGGCTGCTGGAACAGGGCTCTAATTCAGCTGATGGCTGTCCA  
480 E R T K S R R M T N S Q Q K A R I L Q G A L E Q G S N S Q L M A V Q  
2101 GTACACAGAAACCACTAGCATCAGTAGGAATCTGGGAGTGTGCTGCAAGTGTATTACGCCTCCCTGGAAGTTACCAAGGCTCTTTGACGCCATCCGC  
513 Y T E T T S I S R N S G S E L Q V Y Y A S P G S Y Q G F F D A I R  
2201 AGGAGGGGAGATACGTTTTACGTTGTCTCATTTGCAAGGATCATCTGCTATTACCAGCTACCACCCACAACAAGACCACAAGACCAAAAATGTCAATTG  
547 R R G D T F Y V V S F R R D H L L L P A T T H N K T T R P K M S I  
2301 TATTACCAGCAATAAACATAAATGATAATGTGATCAATGGGCAGGACTATGAAGTAATGATGCAGATTGACTGTCAGGTGATGGACACCAGGATCCTCCA  
580 V L P A I N I N D N V I N G Q D Y E V M M Q I D C Q V M D T R I L H  
2401 CATCAAAAGCTCCTCGGTTCCCTTATCTCCGGGATCATCAGCGGAACCAACAGCACCTTCTTTGGTTCCTCCCAACAACACAGAGACGACCCAT  
613 I K S S S V P P Y L R D H Q R N Q T S T F F G S P P T T T E T T H

**NheI (2534)**

2501 GTGGTCAGCACCATCCCTGAGTCGTTGCAGTAGTGCTAGTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCAACTAGAATGCAGTGA  
647 V V S T I P E S L Q •  
2601 AAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGTGAATAAACAAGTTAACAACAACAATTGCATTCATTTA  
2701 TGTTCAGGTTGAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTTAA  
2801 CCTCCAAATCAAGCCTCTACTTGAATCCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCAC  
2901 CTTCTTTCATGGAGTTTAAAGATATAGTATTTTCCCAAGTTTGAAGTACTCTTCACTTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTT  
3001 TTAGTAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAAATCCAGATGCTCAAGGCCCTTCATAATATCC  
3101 CCCAGTTTAGTAGTTGGACTTAGGGAACAAAGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTCGGTGACTTGGAGG  
141 • N R T Y K L P

