



1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTCGGCAATTGAACGGGTGCCTA  
101 GAGAAGGTGGCGCGGGGTAAACTGGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTTCCCGAGGGTGGGGGAGAACCGTATATAAGTGCAGTAGTCGCC  
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTCACGCGCCCGCCCTACCTGAGGCC  
301 GCCATCCACGCCGTTGAGTCGCGTTCTGCCGCTCCCGCTGTGGTGCTCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC  
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

**BspHI (560)**  
**AgeI (552)**

501 TCTGTTCTGCGCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTATCATGAGGCTCCTGGCGCCGCGTCTCTGCTGCTCCT  
601 GCGCTGTGCGCCTCGCGCTGGACGGGTCCAAGTGAAGTGTCCCGGAAGGGGCCAAGATCCGCTACAGCGACGTGAAGAAGCTGGAATGAAGCCA  
13▶ A L C A S R V D G S K C K C S R K G P K I R Y S D V K K L E M K P  
701 AAGTACCCACACTGCGAGGAGAAGATGGTTATCGTACCACCAAGAGCATGTCCAGGTACCGGGGCCAGGAGCACTGCCTGCACCCTAAGCTGCAGAGCA  
47▶ K Y P H C E E K M V I V T T K S M S R Y R G Q E H C L H P K L Q S

**NheI (884)**

801 CCAAACGCTTCATCAAGTGGTACAATGCCTGGAACGAGAAGCGCAGGGTCTACGAAGAATAGGGTGGACGATCATGGAAGAAAGCTAGCTGGCCAGACA  
80▶ T K R F I K W Y N A W N E K R R V Y E E •  
901 TGATAAGATACATTGATGAGTTTGACAAACCACTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTGTAAC

1001 CATTATAAGTGAATAAACAAGTTAAACAACAATTGCATTATTTATGTTTCAGGTTTCCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACC  
1101 CTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTTAACCTCCAATCAAGCCTCTACTGAACTCTTTCTGAGGGATGAATAAGGC  
1201 ATAGGCATCAGGGGCTGTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTCATGGAGTTAAGATATAGTGATTTTCCAAGGTTTGAACTA  
1301 GCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTTAGTAAATATTGAAATAATTTAAATACATCATTGCAATGAAATAA  
1401 ATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGAACCTTTAATAGAAATT  
1501 GGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCATCTCAATG  
1601 AGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGCACATGCCACAGGGGCTGACCACCCTGATGGATCTGTCCACCTCAGAGTAGGGGT  
116▶ 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 E D S Y P H  
1701 GCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGC  
83▶ 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 R G I Y A  
1801 CTCAATGTGGACAGCAGAGATGATCTCCCAGTCTTGGTCTGATGGCCGCCGACATGGTCTTGTGTCCTCATAGAGCATGGTATCTTCTCAGTG  
50▶ 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 T I K E T  
1901 GCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCATGCTGGCCCTCTATAGTGAGTCTATTACTATGCGGATATACTATGCC  
16▶ A V E V L E L D Q Q S I N F T K M  
2001 GATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTAC  
2101 CGCCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTACTAGTCAAAAACAACTCCATTGACGTCAATGGGGTGGAG  
2201 ACTTGAAATCCCGTGAGTCAAACCGCTATCCAGCCATTGATGACTGCCAAAACCGCATCATGGAATAGCGATGACTAATACGTAGATGTAC  
2301 TGCCAAGTAGGAAAGTCCATAAGGTGATGACTGGGCATAATGCCAGGCGGGCATTACCCTGATTGACGTCAATAGGGGGCTACTTGGCATATGAT  
2401 ACACTTGATGACTGCCAAGTGGGAGTTTACCCTAAATACTCCACCCATTGACGTCAATGAAAGTCCCTATTGGCGTACTATGGGAACATACGTCA  
2501 TATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGAGCCAGGCGGGCATTACCCTAAGTTATGTAACGCCTGCAGGTTAATTAAGAACATGTGAGCAA  
2601 AAGCCAGCAAAAGGCCAGGAACCGTAAAAGCGCGGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAG  
2701 TCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCCGACCCTGCCGTTACCAGGA  
2801 TACCTGTCCGCTTTCTCCCTTCGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCAAGCTGGGCT  
2901 GTGTGCACGAACCCCGTTGAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGTAGTCAACCCGGTAAAGACACGACTTATGCCACTGGCAGC  
3001 AGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTT  
3101 GGTATCTGCGCTCTGTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAACAAACCACCGCTGGTAGCGGTGTTTTTTGTTT

3201 GCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAACGAAACTCACGTTAAGG  
3301 GATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGGTTTTTGTGTGAATCGT  
3401 AACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCG  
3501 AA