



Bsp120I (6)

PstI (6)

SdaI (6) **SpeI (13)**

1 CCTGCAGGGCCACTAGTATAGGGCTGTCTGGGAGCCACTCCAGGGCCACAGAAATCTTGTCTCTGACTCAGGGTATTTTGTCTTTTGTGTAAAT
101 GCTCTTCTGACTAATGCAAAACCATGTGTCCATAGAACCAGAAGATTTTCCAGGGGAAAAGGTAAGGAGGTGGTGAAGTGTCTCTGGGTCTGCCCTTCCA
201 GGGCTTGCCTGGGTTAAGAGCCAGGCAGGAAGCTCTCAAGAGCATTGCTCAAGAGTAGAGGGGGCTGGGAGGCCAGGGAGGGGATGGGAGGGGAACA
301 CCCAGGCTGCCCAACAGATGCCCTCCACCCTCTCAACCTCCCTCCCACGGCTGGAGAGTGGGACCAGGTATGGAGGCTTGAAGGCCCTGTGTTG
401 GAGGAAGCCACAAGTCCAGGAACATGGGAGTCTGGGCAGGGGGCAAGGAGGCAGGAACAGGCCATCAGCCAGGACAGGTGGTAAGGCAGGCAGGAGTGT
501 TCCTGTGGGAAAAGTGGGATCAAGCACCTGGAGGGCTCTTTCAGAGCAAAGACAACTGAGGTGCTGCCACTCTACAGAGCCCCACGCCCGCC

Acc65I (629) PstI (643)

NotI (650)

NheI (688)

601 CAGCTATAAGGGCCATGCACCAAGCAGGGTACCCAGGCTGCAGAGTGCATGGGGGTTCTCATCATCATCATCATGGTATGGCTAGCATGACTG
1 M G G S H H H H H H G M A S M T

Acc65I (744)

701 GTGGACAGCAATGGTCTGGGATCTGTACGACGATGACGATAAGGTACCTAAGGATCAGCTTGGAGTTGATCCCCTCGTTTTACAACGTCGTGACTGGGA
17 G G Q Q M G R D L Y D D D D K V P K D Q L G V D P V V L Q R R D W E
801 AAACCTGGCGTTACCAACTTAATCGCCTTGACGACACATCCCCCTTCCGACAGTGGCGTAATAGCGAAGAGGCCCGCAGCGATCGCCCTTCCAACAG
50 N P G V T Q L N R L A A H P P F A S W R N S E E A R T D R P S Q Q
901 TTGGCAGCCTGAATGGCGAATGGCGCTTTCCTGGTTTCCGGCACCAGAAGCGGTGCCGAAAAGTGGCTGGAGTGCATCTTCTGAGGCCGATACTG
84 L R S L N G E W R F A W F P A P E A V P E S W L E C D L P E A D T
1001 TCGTCGTCCCCTCAAATGGCAGATGACGCGTACGACGCTATCCACCAACGTAACCTATCCATTACGGTCAATCCGCGTGTGTCCACCGGA
117 V V V P S N W Q M H G Y D A P I Y T N V T Y P I T V N P P F T E
1101 GAATCCGACGGTGTACTCGCTCACATTTAATGTTGATGAAAGCTGGTACAGGAAGGCCAGACGCGAATATTTTGTGAGGCTTAACTCGGCGTTT
150 N P T G C Y S L T F N V D E S W L Q E G Q T R I I F D G V N S A F
1201 CATCTGTGGTGCACGGGCGCTGGGTGCGTTACGGCCAGGACAGTCTGTTCCGCTCTGAATTTGACCTGAGCGCATTTTACGCGCCGAGAAAACCCGC
184 H L W C N G R W V G Y G Q D S R L P S E F D L S A F L R A G E N R

AatII (1385)

1301 TCGCGGTGATGGTGTGCGTTGGAGTGACGGCAGTATCTGGAAGATCAGGATATGTGGCGGATGAGCGGCATTTTCCGTGACGCTCGTTGCTGCATAA
217 L A V M V L R W S D G S Y L E D Q D M W R M S G I F R D V S L L H K
1401 ACCGACTACAAAATCAGCGATTTCCATGTTGCCACTCGCTTAAATGATGATTTACGCCCGCTGTACTGGAGGCTGAAGTTCAGATGTGCGCGAGTTG
250 P T T Q I S D F H T R A V L E A E V Q M C G E
1501 CGTGACTACTACGGTAAACAGTTTCTTATGGCAGGGTAAACGACGAGTCCGACGCGCACCGCCTTTCGGCGGTGAAATTCAGTACGCGTGGT
284 R D Y L R V T V S L W Q G E T Q V A S G T A P F G G E I I D E R G
1601 GTTATGCCGATCGCTCACACTACGTCTGAACGTCGAAAACCCGAAACTGTGGAGCGCCGAAATCCCGAATCTCTATCGTGGCGGTGGTGAAGTGCACAC
317 G Y A D R V T L R L N V E N P K L W S A E I P N L Y R A V V E L H T
1701 CGCCGACGGCAGCTGATTGAAGCAGAAGCTGCGATGTCGTTTCCGCGAGGTGCGGATTGAAAATGGTCTGCTGCTGCTGAACGGCAAGCGGTTGCTG
350 A D G T L I E A E A C D V G F R E V R I E N G L L L L L N G K P L L

EcoRV (1875)

1801 ATTCGAGGCGTTAACCGTCACGAGCATCATCTCTGCATGGTCAAGTCAATGAGCAGACGATGGTGCAGGATATCCTGCTGATGAAGCAGAAACAAT
384 I R G V N R H E H H P L H G Q V M D E Q T M V Q D I L L M K Q N N

SspI (1992)

1901 TTAACGCCGTGCGCTGTTCCGATTATCCGAACCATCCGCTGTGGTACACGCTGTGCGACCCTACGGCCTGTATGTGGTGGATGAAGCCAATATTGAAAC
417 F N A V R C S H Y P N H P L W Y T L C D R Y G L Y V V D E A N I E T
2001 CCACGGCATGGTCCAATGAATCGTCTGACCGATGATCCGCGCTGGTACCGCGATGAGCGAACCGTAACCGCAATGGTGCAGCGCATCGTAATCAC
450 H G M V P M N R L T D D P R W L P A M S E R V T R M V Q R D R N
2101 CCGAGTGTATCATCTGGTCCGCTGGGAATGAATCAGGACCGGCTAATCAGCAGCGCTGTATCGCTGGATCAAATCTGTCGATCTTCCCGCCCGG
484 P S V I I W S L G N E S G H G A N H D A L Y R W I K S V D P S R P
2201 TGCAGTATGAAGCGGGGAGCCGACACCGCCACCGATATTATTTGCCGATGTACGCGCGCTGGATGAAGACCAGCCCTTCCCGGCTGTGCCGAA
517 V Q Y E G G G A D T T A T D I I C P M Y A R V D E D Q P F P A V P K
2301 ATGGTCCATCAAAAATGGCTTTCGCTACTGGAGAGACGCGCCCTGTATCTTTGCGAATACGCCACCGCATGGGTAACAGTCTTGGCGGTTTCGCT
550 W S I K K W L S L C P G E T R P L I L C E Y A H A M G N S L G G F A
2401 AAATACTGGCAGCGTTCGTCAGTATCCCGTTTACAGGGCGGCTTCTGCTGGGACTGGTGGATCAGTCTGATTAATATGATGAAAACGGCAAC
584 K Y W Q A F R Q Y P R L Q G G F V W D W V D Q S L I K Y D E N G N
2501 CGTGGTCCGCTTACGGCGGTGATTTGGCGATACGCCAAGCATCGCCAGTCTGTATGAACGGTCTGGTCTTTCGCCACCGCACGCCGATCCAGCGCT
617 P W S A Y G G D F G D T P N D R Q F C M N G L V F A D R T P H P A L

SacI (2702)

2601 GACGGAAGCAAACACCAGCAGCAGTTTTCCAGTCCGTTTATCCGGGCAACCATCGAAGTGACCAGCGAATACCTGTTCCGTCATAGCGATAACGAG
650 T E A K H Q Q Q F F Q F R L S G Q T I E V T S E Y L F R H S D N E
2701 CTCCTGCACTGGATGGTGGCGTGGATGTAAGCCGCTGGCAAGCGTGAAGTGCCTCTGGATGTCGCTCCACAAGGTAACAGTGTATTGAAGTCCGCTG
684 L L H W M V A L D G K P L A S G E V P L D V A P Q G K Q L I E L F
2801 AACTACCGCAGCCGAGAGCGCCGGGCACTCTGGCTCACAGTACGCTAGTGAACCGAACCGACCGCATGGTGCAGAACCGGGCACATCAGCGCTG
717 E L P Q P E S A G Q L W L T V R V V Q P N A T A W S E A G H I S A W
2901 GCAGCAGTGGGCTCTGGCGAAAACCTCAGTGTGACGCTCCCGCGGCTCCACCGCATCCCGCATCTGACCACCGGAAATGGATTTTTCATGATCGAG
750 Q Q W R L A E N L S V T L P A A S H A I P H L T T S E M D F C I E
3001 CTGGTAATAAGCGTTGGCAATTAACCGCAGTCAAGGCTTCTTTCAGAGTGTGGATTGGCGATAAAAAACAAGTCTGACGCGCTGCGCATGATG
784 L G N K R W Q F N R Q S G F L S Q M W I G D K K Q L L T P L R D Q
3101 TCACCGTGCACCGCTGGATAACGACATTGGCGAAGTGAAGCGACCCGATTGACCTAACGCTGGTGAACGCTGGAAGGGCGGGCGGCAATACCA
817 F T T A R P L D N D I G V S E A T R I D P N A W V E R W K A A G H Y Q
3201 GGCCGAAGCAGCTTGTGCACTGACGCGGATACACTTGTGATGCGGCTGATTACGACCGCTCACCGTGGCAGCATCAGGGGAAAACCTTATTT
850 A E A A L L Q C T A D T L A D A V L I T T A H A W Q H Q G K L L F
3301 ATCAGCCGAAAACCTACCGGATTGATGGTAGTGGTCAAATGGCGATTACCGTGTGATGTTGAAGTGGCGAGCGATACCCGCATCCGCGCGGATGGCC
884 I S R K T Y R I D G S G Q M A I T V D V E V A S D T P H P A R I G
3401 TGAACCTGCCAGTGGCGCAGGTAGCAGAGCGGGTAAACTGGCTCGGATTAGGGCCGCAAGAAAATATCCCGACCGCCTTACTGCCGCTGTTTTCGCG
917 L N C Q L A Q V A E R V N W L G L G P Q E N Y P D R L T A A C F D R

BsiWI (3532)

BstZ17I (3524)

BspLU11I (3521)

3501 CTGGGATCGCCATTGTCAGACATGTATACCCCGTACGCTCTCCCGAGCGAAAACGGTCTGCGCTGCGGGACGCGCAATTGAATTATGGCCACACCAG
950▶ W D L P L S D M Y T P Y V F P S E N G L R C G T R E L N Y G P H Q
3601 TGGCGCGCGACTTCCAGTTCAACATCAGCCGCTACAGTCAACAGCAACTGATGAAACCAGCCATCGCCATCTGCTGCAGCGGGAAGAAGGCACATGGC
984▶ W R G D F Q F N I S R Y S Q Q Q L M E T S H R H L L H A E E G T W
3701 TGAATATCGACGGTTCCATATGGGATTGGTGGCGACGACTCTGGAGCCCGTCAGTATCGGCGGAATTACAGCTGAGCGCCGGTCTACCATACCA
1017▶ L N I D G F H M G I G G D D S W S P S V S A E L Q L S A G R Y H Y Q

NheI (3841)

EcoRI (3835)

3801 GTTGGTCTGGTGTCAAAAATAATAATCTAGTCGAGAATTCGCTAGCTCGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGT
1050▶ L V W C Q K •
3901 GAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAA

MfeI (4015)

4001 CAAGTTAACAAACAATTGCATTCATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGAGGTTTTTTAAAGCAAGTAAAACCTCTACAAATGTGGTAGAT
4101 CCATTTAAATGTTAATTAACAGCCATGACCAAAATCCCTTAACGTGAGTTTTCTGTTCCACTGAGCGTCAGACCCCGTAGAAAAGATCAAAGGATCTTCT
4201 TGAGATCCTTTTTTCTGCGGTAATCTGCTGCTTCAAACAAAAAACACCGCTACCAGCGGTGGTTTGTTCGGGATCAAGAGCTACCAACTCTTT
4301 TTCGAAGGTAAGTGGCTTCAGCAGAGCGCAGATACCAATACTGTTCTTCTAGTGTAGCCGTAGTTAGGCCACCACTTCAAGAACTCTGTAGCACCGCC
4401 TACATACCTCGCTCTGCTAATCTGTTACCAAGTGGCTGCTGCCAGTGGCGATAAGTCGTGCTTACCGGTTGGACTCAAGACGATGTTACCGGATAAG
4501 GCGCAGCGGTGCGGCTAACGGGGGTTCTGTGCACAGCCAGCTTGAGCGAACGACCTACACCGAACTGAGATACCTACAGCGTGTGAGCTATGAGAAA
4601 GCGCCACGCTCCCGAAGGGGAGAAAGCGGACAGGTATCCGGTAAGCGGCAGGGTCGGAACAGGAGCGCACGAGGGAGCTTCCAGGGGAAAACGCCTG
4701 GTATCTTTATAGTCTGTGCGGTTTCGCCACCTGACTTGAGCGTCGATTTTTGTGATGCTGTGAGGGGGCGGAGCTATGAAAAACGCCAGCAAC

BspLU11I (4844)

AseI (4882)

4801 GCGGCCTTTTACGGTTCCTGGCCTTTTGTGCGCCTTTTGTGTCACATGTTCTTAATTAATTTTTCAAAGTAGTTGACAATTAATCATCGGCATAGTAT

MscI (4944)

4901 ATCGGCATAGTATAATACGACTCACTATAGGAGGGCCATCGGCAAGTTGACCAGTGTGTCAGTGTCCAGTGTCCAGTGTCCAGCCAGGGATGTGGTGGAGCTGT
1▶ M A K L T S A V P V L T A R D V A G A V
5001 GAGTCTGGACTGACAGGTTGGGTTCTCCAGAGATTTGTGGAGGATGACTTTGCAGGTGTGGTCAGAGATGATGTACCCCTGTTTCATCTCAGCAGTCC
21▶ E F W T D R L G F S R D F V E D D F A G V V R D D V T L F I S A V
5101 AGGACCAGGTGGTGCCTGACAACACCCTGGCTTGGGTGTGGGTGAGAGGACTGGATGAGCTGTATGCTGAGTGGAGTGGTGGTCTCCACCAACTTCAG
54▶ Q D Q V V P D N T L A W V W V R G L D E L Y A E W S E V V S T N F R
5201 GGATGCCAGTGGCCTGCCATGACAGAGATTGGAGAGCAGCCCTGGGGAGAGAGTTTGCCTGAGAGACCCAGCAGGCAACTGTGTGACTTTGTGGCA
87▶ D A S G P A M T E I G E Q P W G R E F A L R D P A G N C V H F V A
5301 GAGGAGCAGGACTGAGGATAAGAATTGAGTTTCAGAAAAGGGGCGCTGAGTGGCCCTTTTTCAACTTAATTAA
121▶ E E Q D •