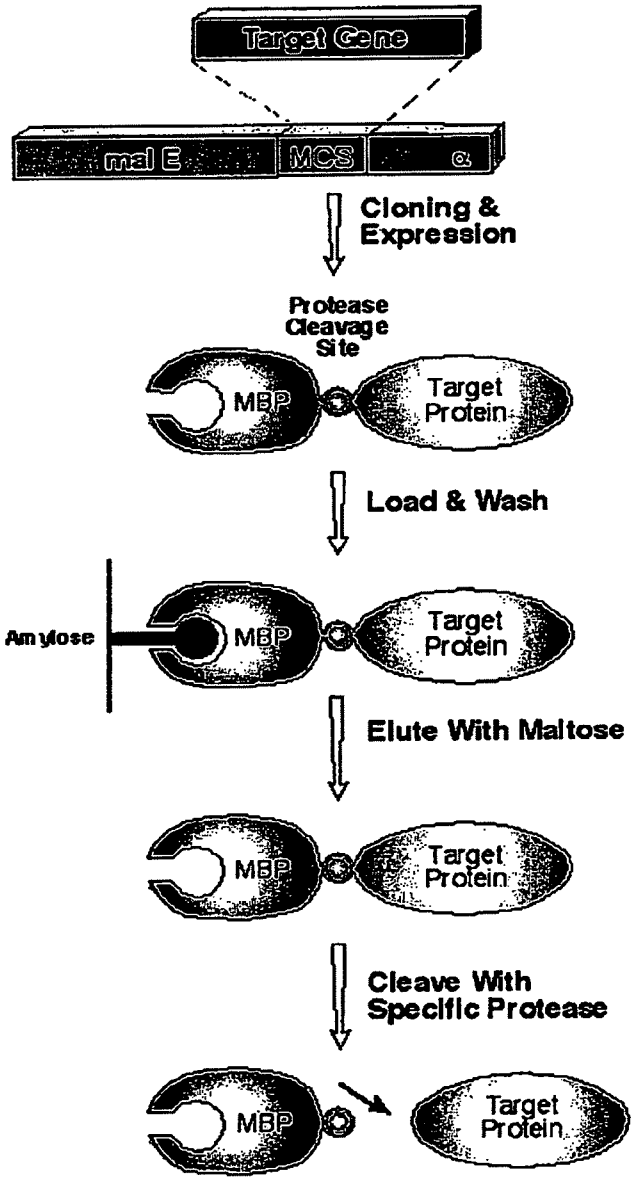

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mal E
MCS
α
Cloning &
Expression
Protease
Cleavage
Site
MBP
Target
Protein
Load & Wash
Amylose
MBP
Target
Protein
Elute With Maltose
MBP
Target
Protein
Cleave With
Specific Protease
MBP
Target
Protein

Figure 1

Figure 2A-1 (SEQ ID NO:1 and 2)

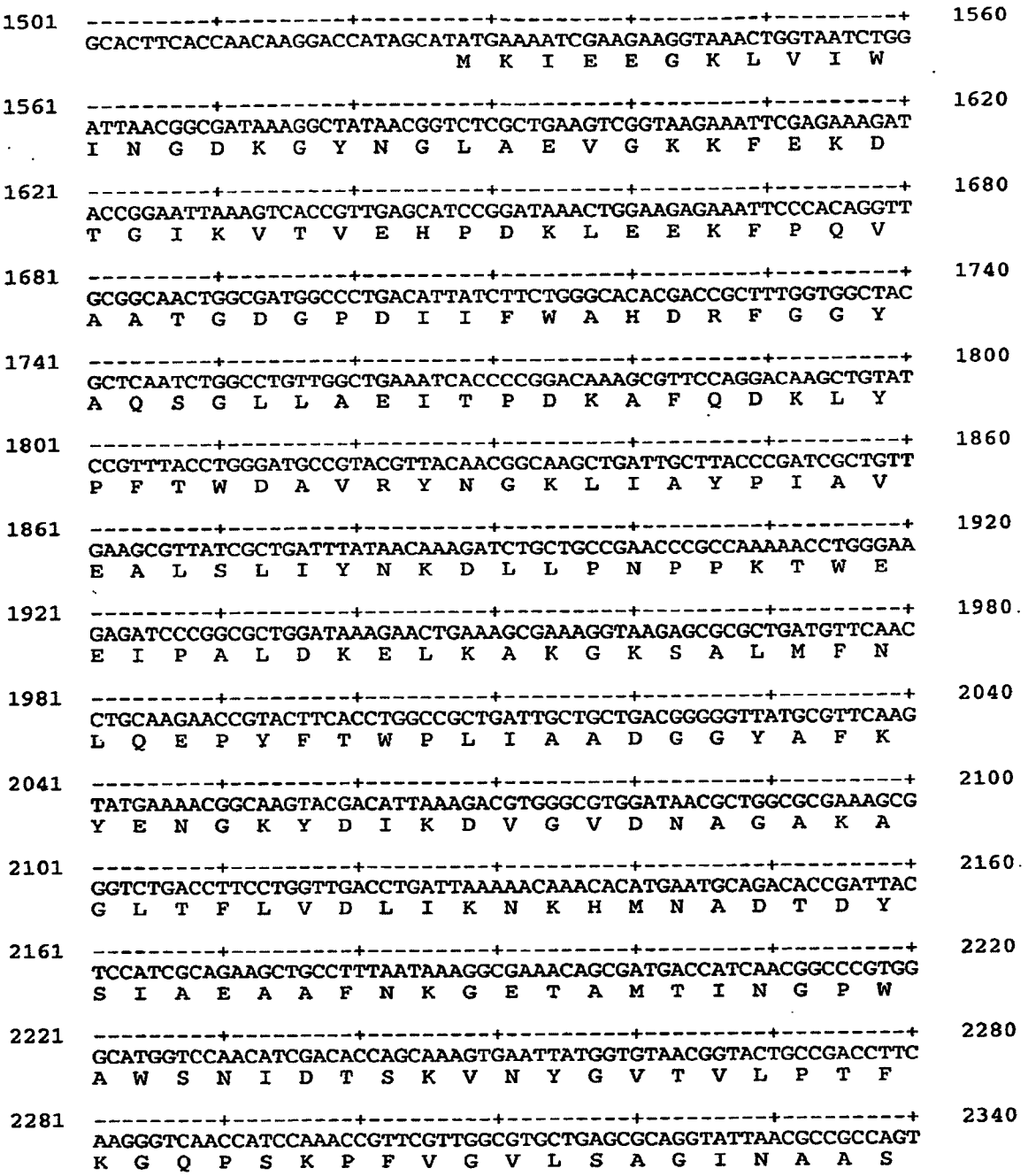


Figure 2A-2

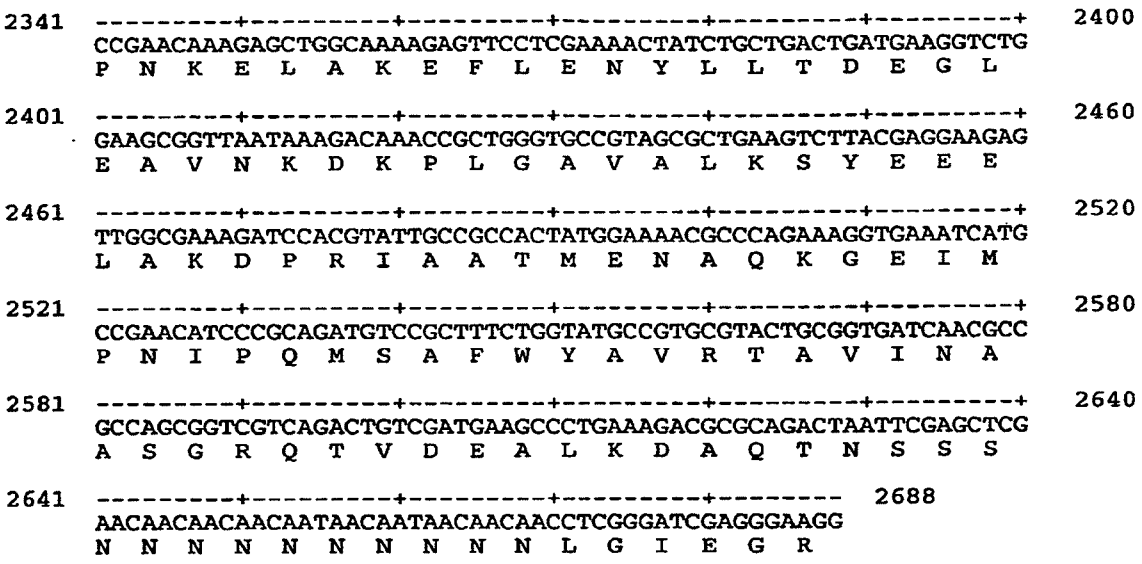

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2401
2460
GAAGCGGTTAATAAAGACAAACCGCTGGGTGCCGTAGCGCTGAAGTCTTACGAGGAAGAG
E A V N K D K P L G A V A L K S Y E E E
2461
2520
TTGGCGAAAGATCCACGTATTGCCGCCACTATGGAAAACGCCCAGAAAGGTGAAATCATG
L A K D P R I A A T M E N A Q K G E I M
2521
2580
CCGAACATCCCGCAGATGTCCGCTTTCTGGTATGCCGTGCGTACTGCGGTGATCAACGCC
P N I P Q M S A F W Y A V R T A V I N A
2581
2640
GCCAGCGGTCGTCAGACTGTCGATGAAGCCCTGAAAGACGCGCAGACTAATTCGAGCTCG
A S G R Q T V D E A L K D A Q T N S S S
2641
2688
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Figure 2B-1 (SEQ ID NO:3 and 4)

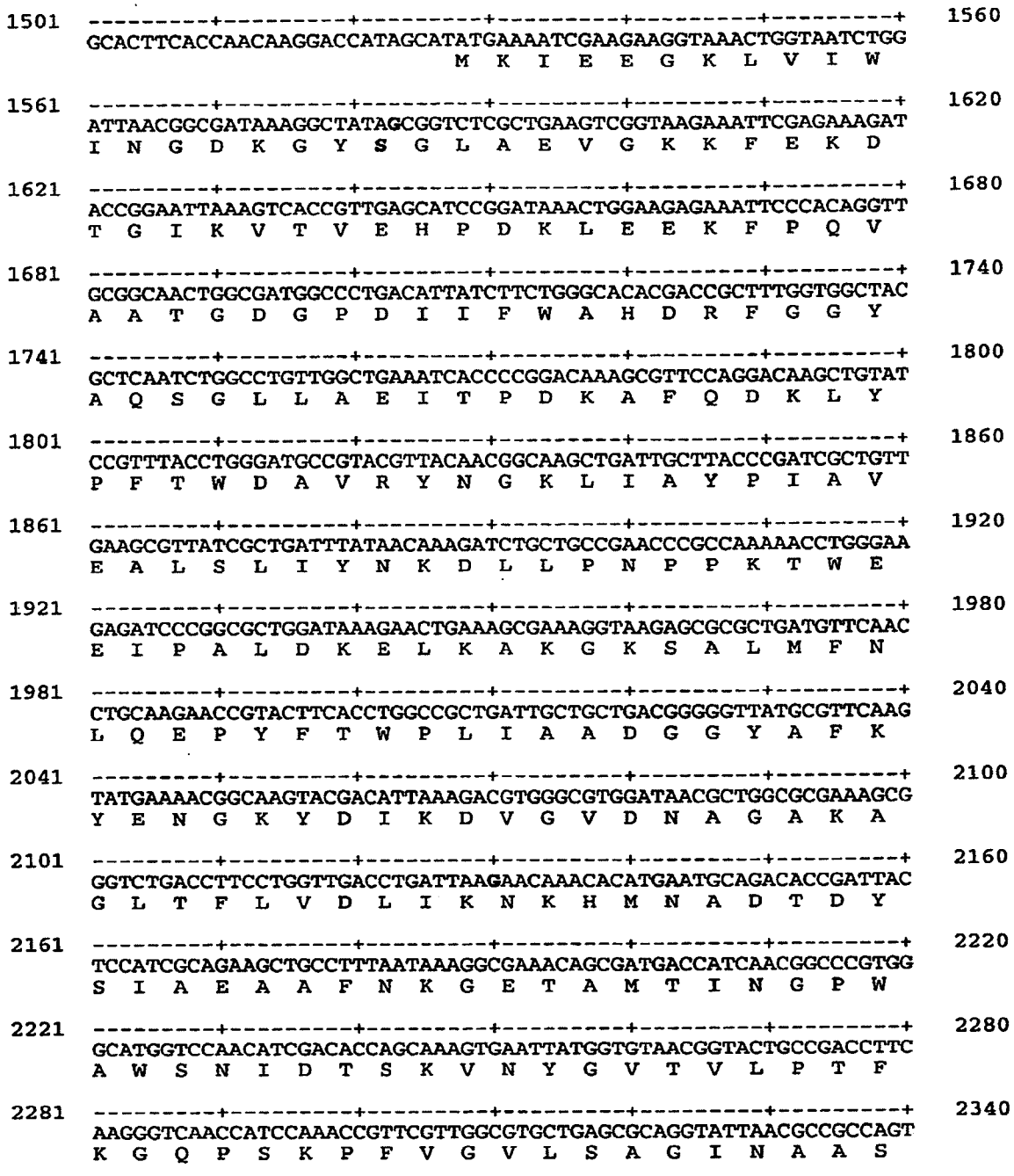


Figure 2B-2

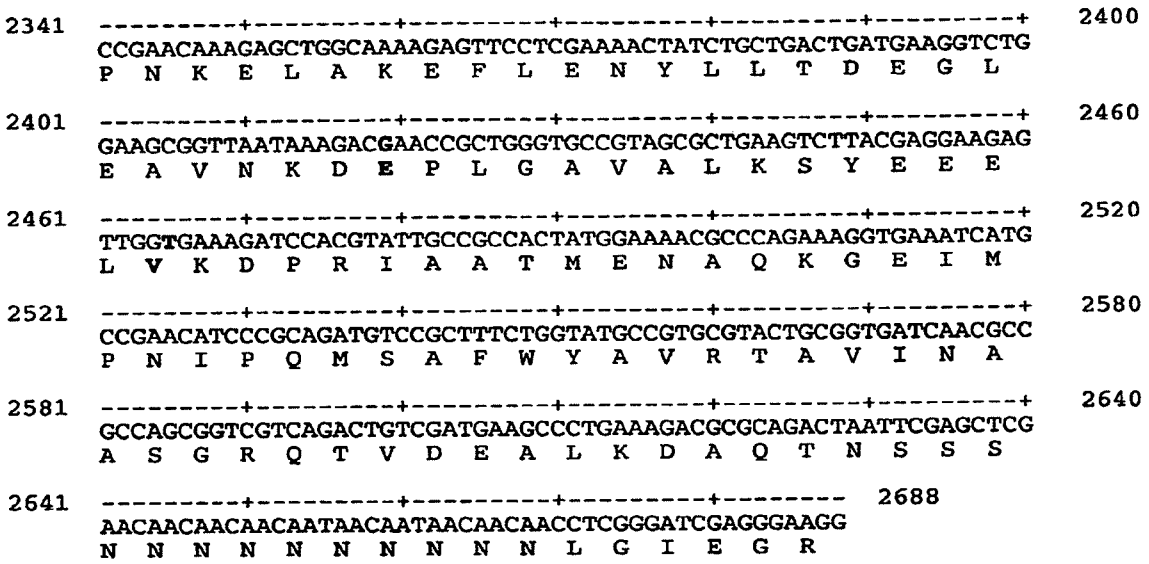

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2401
GAAGCGGTTAATAAAGACGAACCGCTGGGTGCCGTAGCGCTGAAGTCTTACGAGGAAGAG
E A V N K D E P L G A V A L K S Y E E E
2460
2461
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L V K D P R I A A T M E N A Q K G E I M
2520
2521
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P N I P Q M S A F W Y A V R T A V I N A
2580
2581
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A S G R Q T V D E A L K D A Q T N S S S
2640
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2688

Figure 2C-1 (SEQ ID NO:5 and 6)

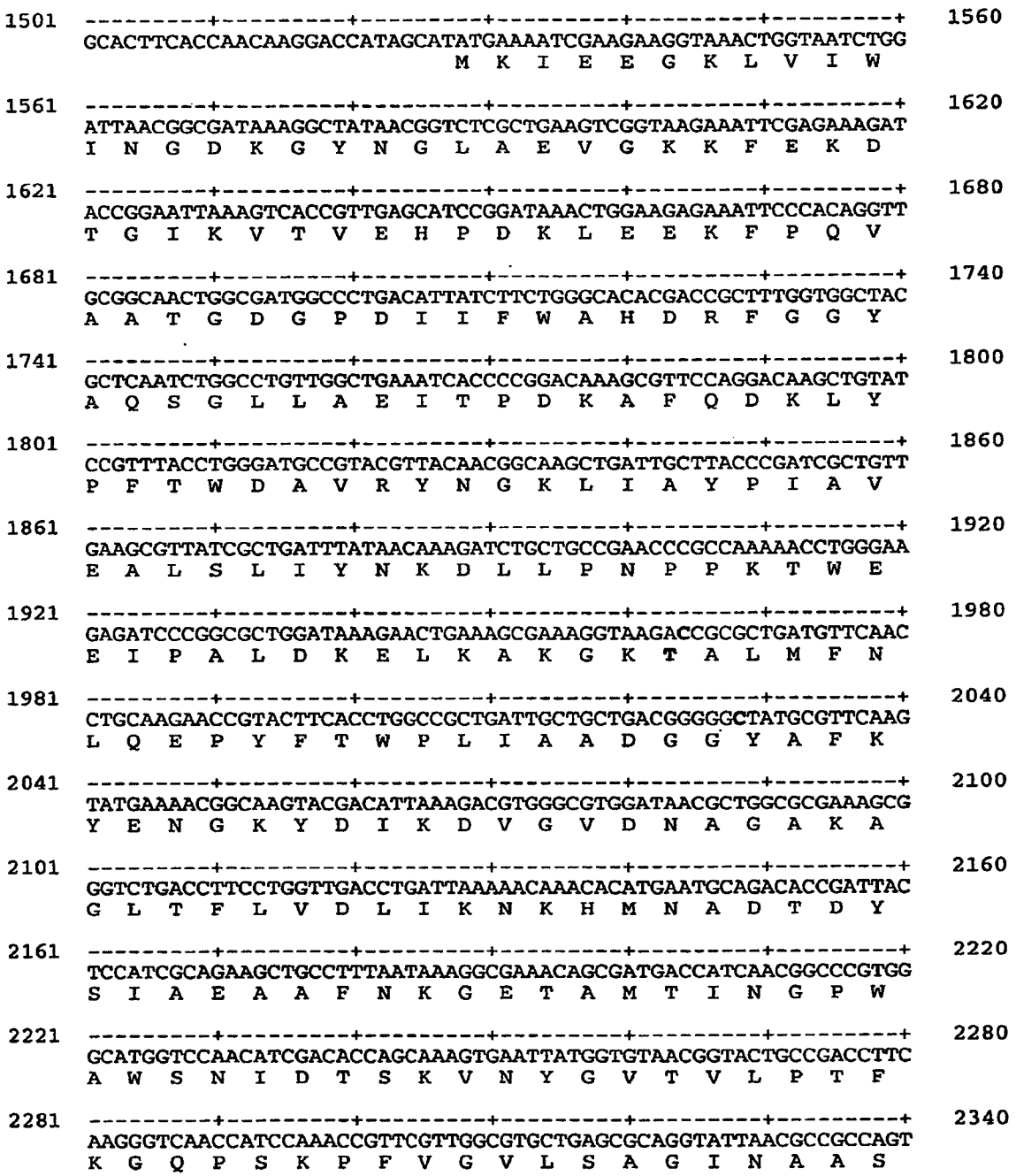
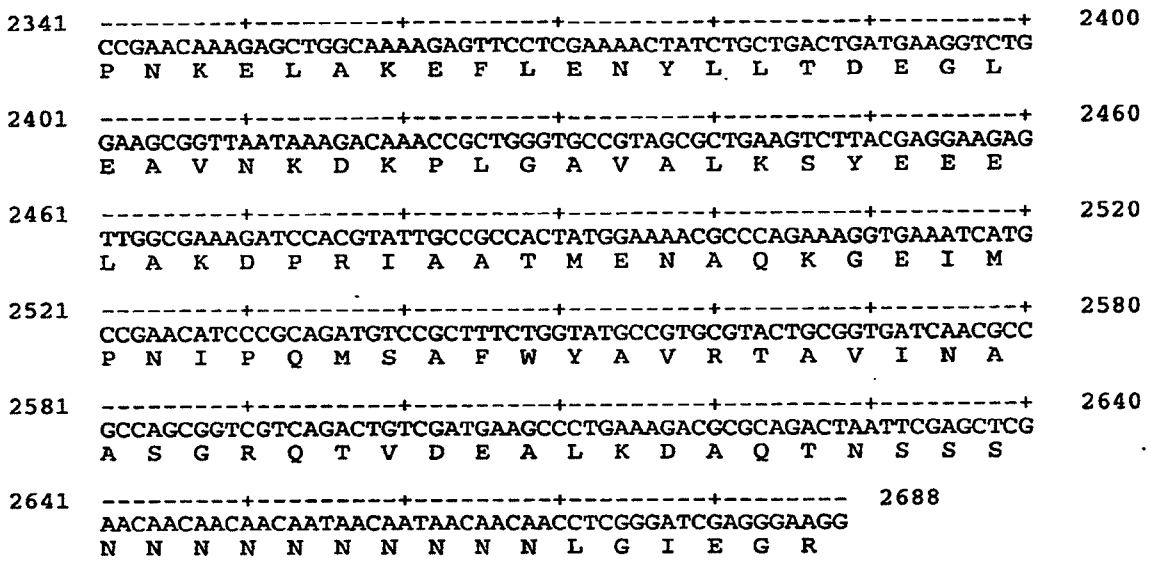


Figure 2C-2


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2401
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E A V N K D K P L G A V A L K S Y E E E
2460
2461
TTGGCGAAAGATCCACGTATTGCCGCCACTATGGAAAACGCCCAGAAAGGTGAAATCATG
L A K D P R I A A T M E N A Q K G E I M
2520
2521
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P N I P Q M S A F W Y A V R T A V I N A
2580
2581
GCCAGCGGTCGTCAGACTGTCGATGAAGCCCTGAAAGACGCGCAGACTAATTCGAGCTCG
A S G R Q T V D E A L K D A Q T N S S S
2640
2641
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N N N N N N N N N N L G I E G R
2688

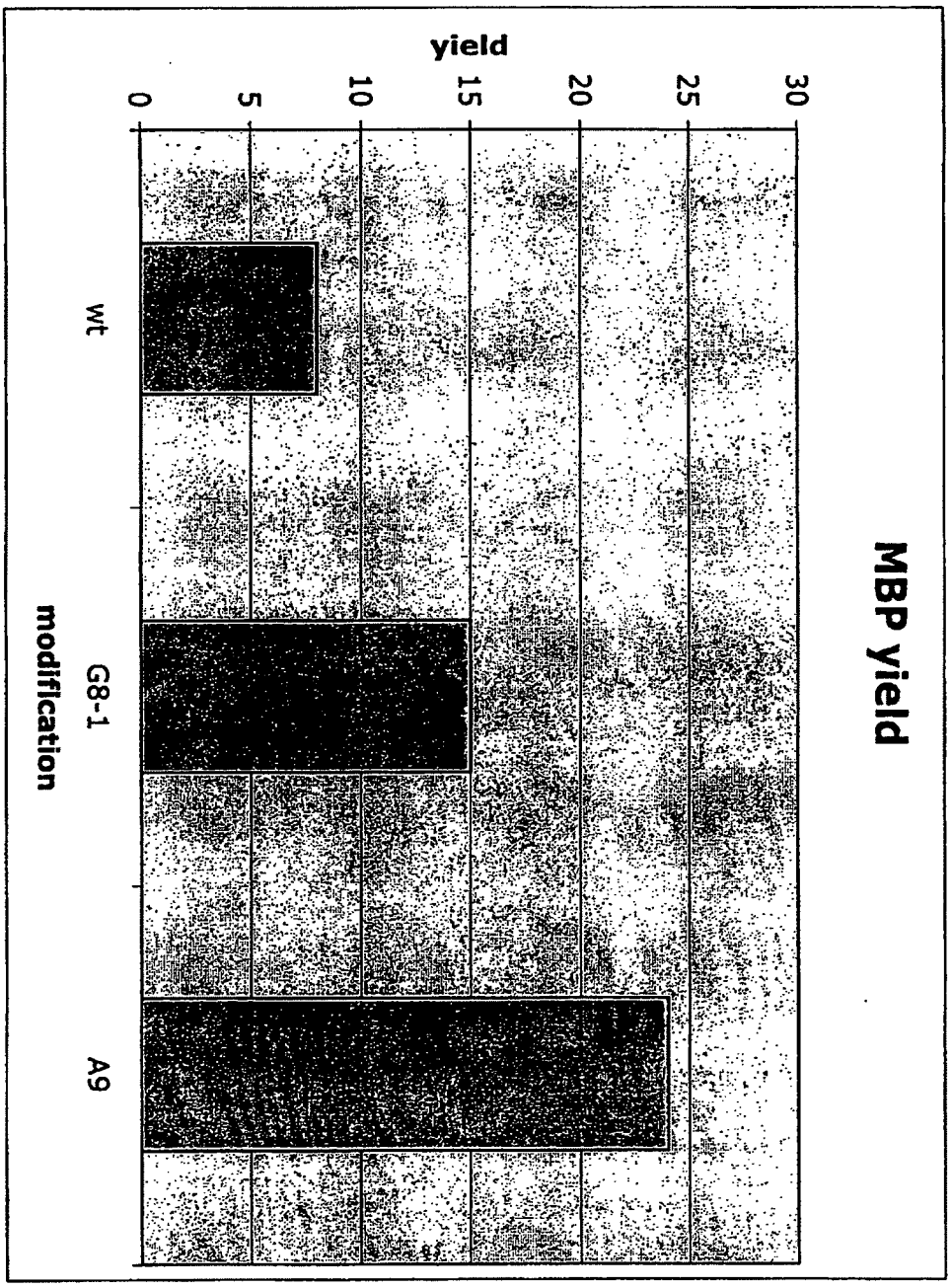


Figure 3

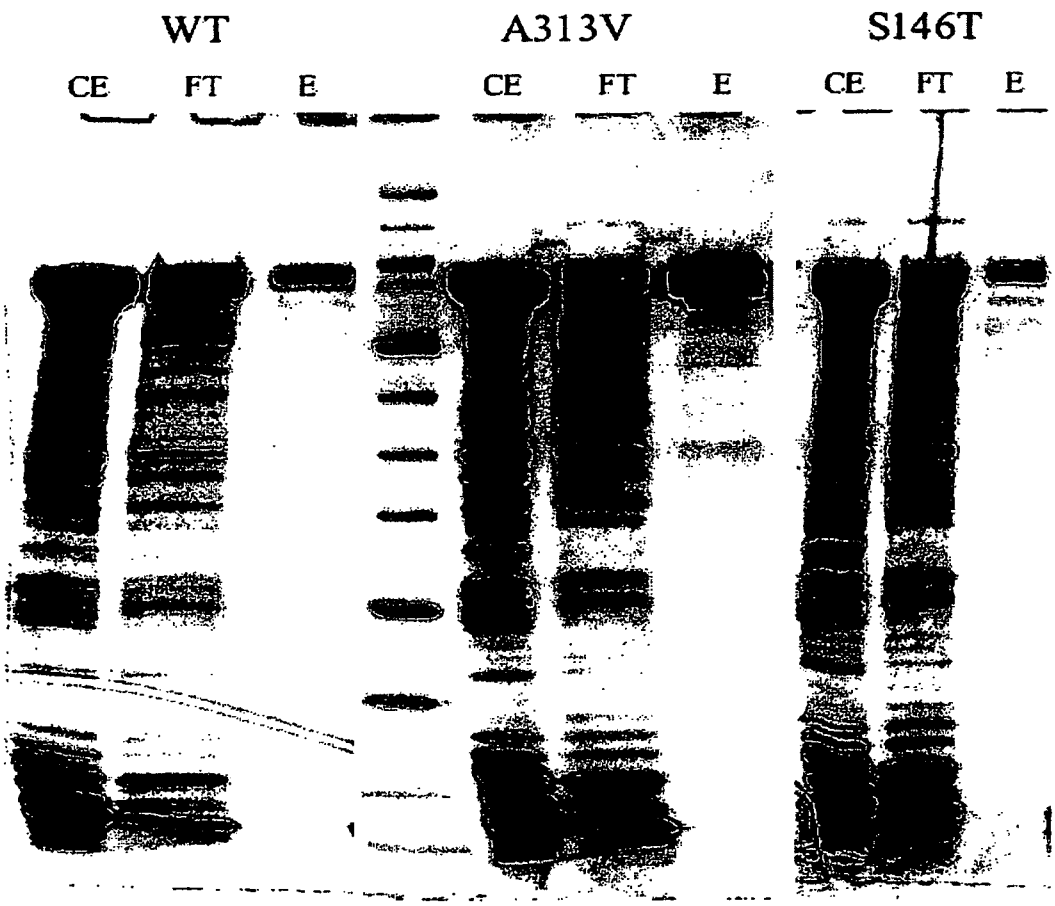


Figure 4

Figure 5-1 (SEQ ID NO:7)

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  51  CCGGAAGAGA GTCAATTCAG GGTGGTGAAT GTGAAACCAG TAACGTTATA
 101  CGATGTCGCA GAGTATGCCG GTGTCTCTTA TCAGACCGTT TCCCGCGTGG
 151  TGAACCAGGC CAGCCACGTT TCTGCGAAAA CGCGGGAAAA AGTGGAAGCG
 201  GCGATGGCGG AGCTGAATTA CATTCCCAAC CGCGTGGCAC AACAACTGGC
 251  GGGCAAACAG TCGTTGCTGA TTGGCGTTGC CACCTCCAGT CTGGCCCTGC
 301  ACGCGCCGTC GCAAATTGTC GCGGCGATTA AATCTCGCGC CGATCAACTG
 351  GGTGCCAGCG TGGTGGTGTC GATGGTAGAA CGAAGCGGCG TCGAAGCCTG
 401  TAAAGCGGCG GTGCACAATC TTCTCGCGCA ACGCGTCAGT GGGCTGATCA
 451  TTAACTATCC GCTGGATGAC CAGGATGCCA TTGCTGTGGA AGCTGCCTGC
 501  ACTAATGTTC CGGCGTTATT TCTTGATGTC TCTGACCAGA CACCCATCAA
 551  CAGTATTATT TTCTCCCATG AAGACGGTAC GCGACTGGGC GTGGAGCATC
 601  TGGTCGCATT GGGTCACCAG CAAATCGCGC TGTTAGCGGG CCCATTAAGT
 651  TCTGTCTCGG CGCGTCTGCG TCTGGCTGGC TGGCATAAAT ATCTCACTCG
 701  CAATCAAATT CAGCCGATAG CGGAACGGGA AGGCGACTGG AGTGCCATGT
 751  CCGGTTTTCA ACAAACCATG CAAATGCTGA ATGAGGGCAT CGTTCCCACT
 801  GCGATGCTGG TTGCCAACGA TCAGATGGCG CTGGGCGCAA TGCGCGCCAT
 851  TACCGAGTCC GGGCTGCGCG TTGGTGCGGA TATCTCGGTA GTGGGATACG
 901  ACGATACCGA AGACAGCTCA TGTTATATCC CGCCGTTAAC CACCATCAAA
 951  CAGGATTTTC GCCTGCTGGG GCAAACCAGC GTGGACCGCT TGCTGCAACT
1001  CTCTCAGGGC CAGGCGGTGA AGGGCAATCA GCTGTTGCCC GTCTCACTGG
1051  TGAAAAGAAA AACCACCCTG GCGCCCAATA CGCAAACCGC CTCTCCCCGC
1101  GCGTTGGCCG ATTCATTAAT GCAGCTGGCA CGACAGGTTT CCCGACTGGA
1151  AAGCGGGCAG TGAGCGCAAC GCAATTAATG TGAGTTAGCT CACTCATTAG
1201  GCACAATTCT CATGTTTGAC AGCTTATCAT CGACTGCACG GTGCACCAAT
1251  GCTTCTGGCG TCAGGCAGCC ATCGGAAGCT GTGGTATGGC TGTGCAGGTC
1301  GTAAATCACT GCATAATTCG TGTCGCTCAA GGCGCACTCC CGTTCTGGAT
1351  AATGTTTTTT GCGCCGACAT CATAACGGTT CTGGCAAATA TTCTGAAATG
```

Figure 5-2

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1401  AGCTGTTGAC AATTAATCAT CGGCTCGTAT AATGTGTGGA ATTGTGAGCG
1451  GATAACAATT TCACACAGGA AACAGCCAGT CCGTTTAGGT GTTTTCACGA
1501  GCACTTCACC AACAAGGACC ATAGATTATG AAAATCGAAG AAGGTAAACT
1551  GGTAATCTGG ATTAACGGCG ATAAAGGCTA TAACGGTCTC GCTGAAGTCG
1601  GTAAGAAATT CGAGAAAGAT ACCGGAATTA AAGTCACCGT TGAGCATCCG
1651  GATAAACTGG AAGAGAAATT CCCACAGGTT GCGGCAACTG GCGATGGCCC
1701  TGACATTATC TTCTGGGCAC ACGACCGCTT TGGTGGCTAC GCTCAATCTG
1751  GCCTGTTGGC TGAAATCACC CCGGACAAAG CGTTCCAGGA CAAGCTGTAT
1801  CCGTTTACCT GGGATGCCGT ACGTTACAAC GGCAAGCTGA TTGCTTACCC
1851  GATCGCTGTT GAAGCGTTAT CGCTGATTTA TAACAAAGAT CTGCTGCCGA
1901  ACCCGCCAAA AACCTGGGAA GAGATCCCGG CGCTGGATAA AGAACTGAAA
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2001  CTGGCCGCTG ATTGCTGCTG ACGGGGGTTA TGCGTTCAAG TATGAAAACG
2051  GCAAGTACGA CATTAAAGAC GTGGGCGTGG ATAACGCTGG CGCGAAAGCG
2101  GGTCTGACCT TCCTGGTTGA CCTGATTAAA AACAAACACA TGAATGCAGA
2151  CACCGATTAC TCCATCGCAG AAGCTGCCTT TAATAAAGGC GAAACAGCGA
2201  TGACCATCAA CGGCCCGTGG GCATGGTCCA ACATCGACAC CAGCAAAGTG
2251  AATTATGGTG TAACGGTACT GCCGACCTTC AAGGGTCAAC CATCCAAACC
2301  GTTCGTTGGC GTGCTGAGCG CAGGTATTAA CGCCGCCAGT CCGAACAAAG
2351  AGCTGGCAAA AGAGTTCCTC GAAAACTATC TGCTGACTGA TGAAGGTCTG
2401  GAAGCGGTTA ATAAAGACAA ACCGCTGGGT GCCGTAGCGC TGAAGTCTTA
2451  CGAGGAAGAG TTGGCGAAAG ATCCACGTAT TGCCGCCACC ATGGAAAACG
2501  CCCAGAAAGG TGAAATCATG CCGAACATCC CGCAGATGTC CGCTTTCTGG
2551  TATGCCGTGC GTACTGCGGT GATCAACGCC GCCAGCGGTC GTCAGACTGT
2601  CGATGAAGCC CTGAAAGACG CGCAGACTAA TTCGAGCTCG AACAACAACA
2651  ACAATAACAA TAACAACAAC CTCGGGATCG AGGGAAGGGG TACGCTCGAG
2701  GGTTCTCAGC ATGCACCGGG TGGCCTGACC GGTCTGAACT CAGGCCTCAC
2751  GACAAATCCT GGTGTATCCG CTTGGCAGGT CAACACAGCT TATACTGCGG
```

Figure 5-3

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2801  GACAATTGGT CACATATAAC GGCAAGACGT ATAAATGTTT GCAGCCCCAC
2851  ACCTCCTTGG CAGGATGGGA ACCATCCAAC GTTCCTGCCT TGTGGCAGCT
2901  TCAATGACTG CAGGCAAGCT TGGCACTGGC CGTCGTTTTA CAACGTCGTG
2951  ACTGGGAAAA CCCTGGCGTT ACCCAACTTA ATCGCCTTGC AGCACATCCC
3001  CCTTTCGCCA GCTGGCGTAA TAGCGAAGAG GCCCGCACCG ATCGCCCTTC
3051  CCAACAGTTG CGCAGCCTGA ATGGCGAATG GCAGCTTGGC TGTTTTGGCG
3101  GATGAGATAA GATTTTCAGC CTGATACAGA TTAAATCAGA ACGCAGAAGC
3151  GGTCTGATAA AACAGAATTT GCCTGGCGGC AGTAGCGCGG TGGTCCCACC
3201  TGACCCCATG CCGAACTCAG AAGTGAAACG CCGTAGCGCC GATGGTAGTG
3251  TGGGGTCTCC CCATGCGAGA GTAGGGAACT GCCAGGCATC AAATAAAACG
3301  AAAGGCTCAG TCGAAAGACT GGGCCTTTCG TTTTATCTGT TGTTTGTCGG
3351  TGAACGCTCT CCTGAGTAGG ACAAATCCGC CGGGAGCGGA TTTGAACGTT
3401  GCGAAGCAAC GGCCCGGAGG GTGGCGGGCA GGACGCCCGC CATAAACTGC
3451  CAGGCATCAA ATTAAGCAGA AGGCCATCCT GACGGATGGC CTTTTTGCGT
3501  TTCTACAAAC TCTTTTTGTT TATTTTTCTA AATACATTCA AATATGTATC
3551  CGCTCATGAG ACAATAACCC TGATAAATGC TTCAATAATA TTGAAAAAGG
3601  AAGAGTATGA GTATTCAACA TTTCCGTGTC GCCCTTATTC CCTTTTTTGC
3651  GGCATTTTGC CTTCCTGTTT TTGCTCACCC AGAAACGCTG GTGAAAGTAA
3701  AAGATGCTGA AGATCAGTTG GGTGCACGAG TGGGTTACAT CGAACTGGAT
3751  CTCAACAGCG GTAAGATCCT TGAGAGTTTT CGCCCCGAAG AACGTTCTCC
3801  AATGATGAGC ACTTTTAAAG TTCTGCTATG TGGCGCGGTA TTATCCCGTG
3851  TTGACGCCGG GCAAGAGCAA CTCGGTCGCC GCATACACTA TTCTCAGAAT
3901  GACTTGGTTG AGTACTCACC AGTCACAGAA AAGCATCTTA CGGATGGCAT
3951  GACAGTAAGA GAATTATGCA GTGCTGCCAT AACCATGAGT GATAACACTG
4001  CGGCCAACTT ACTTCTGACA ACGATCGGAG GACCGAAGGA GCTAACCGCT
4051  TTTTTGCACA ACATGGGGGA TCATGTAACT CGCCTTGATC GTTGGGAACC
4101  GGAGCTGAAT GAAGCCATAC CAAACGACGA GCGTGACACC ACGATGCCTG
4151  TAGCAATGGC AACAACGTTG CGCAAACTAT TAACTGGCGA ACTACTTACT
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Figure 5-4

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4201  CTAGCTTCCC GGCAACAATT AATAGACTGG ATGGAGGCGG ATAAAGTTGC
4251  AGGACCACTT CTGCGCTCGG CCCTTCCGGC TGGCTGGTTT ATTGCTGATA
4301  AATCTGGAGC CGGTGAGCGT GGGTCTCGCG GTATCATTGC AGCACTGGGG
4351  CCAGATGGTA AGCCCTCCCG TATCGTAGTT ATCTACACGA CGGGGAGTCA
4401  GGCAACTATG GATGAACGAA ATAGACAGAT CGCTGAGATA GGTGCCTCAC
4451  TGATTAAGCA TTGGTAACTG TCAGACCAAG TTTACTCATA TATACTTTAG
4501  ATTGATTTAC CCCGGTTGAT AATCAGAAAA GCCCCAAAAA CAGGAAGATT
4551  GTATAAGCAA ATATTTAAAT TGTAAACGTT AATATTTTGT TAAAATTCGC
4601  GTTAAATTTT TGTTAAATCA GCTCATTTTT TAACCAATAG GCCGAAATCG
4651  GCAAAATCCC TTATAAATCA AAAGAATAGC CCGAGATAGG GTTGAGTGTT
4701  GTTCCAGTTT GGAACAAGAG TCCACTATTA AAGAACGTGG ACTCCAACGT
4751  CAAAGGGCGA AAAACCGTCT ATCAGGGCGA TGGCCCACTA CGTGAACCAT
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4851  AACCCTAAAG GGAGCCCCCG ATTTAGAGCT TGACGGGGAA AGCCGGCGAA
4901  CGTGGCGAGA AAGGAAGGGA AGAAAGCGAA AGGAGCGGGC GCTAGGGCGC
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5151  GCGCGTAATC TGCTGCTTGC AAACAAAAAA ACCACCGCTA CCAGCGGTGG
5201  TTTGTTTGCC GGATCAAGAG CTACCAACTC TTTTTCCGAA GGTAACTGGC
5251  TTCAGCAGAG CGCAGATACC AAATACTGTC CTTCTAGTGT AGCCGTAGTT
5301  AGGCCACCAC TTCAAGAACT CTGTAGCACC GCCTACATAC CTCGCTCTGC
5351  TAATCCTGTT ACCAGTGGCT GCTGCCAGTG GCGATAAGTC GTGTCTTACC
5401  GGGTTGGACT CAAGACGATA GTTACCGGAT AAGGCGCAGC GGTCGGGCTG
5451  AACGGGGGGT TCGTGCACAC AGCCCAGCTT GGAGCGAACG ACCTACACCG
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5551  GGGAGAAAGG CGGACAGGTA TCCGGTAAGC GGCAGGGTCG GAACAGGAGA
```

Figure 5-5

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5601  GCGCACGAGG GAGCTTCCAG GGGGAAACGC CTGGTATCTT TATAGTCCTG
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5701  GGGGGGCGGA GCCTATGGAA AAACGCCAGC AACGCGGCCT TTTTACGGTT
5751  CCTGGCCTTT TGCTGGCCTT TTGCTCACAT GTTCTTTCCT GCGTTATCCC
5801  CTGATTCTGT GGATAACCGT ATTACCGCCT TTGAGTGAGC TGATACCGCT
5851  CGCCGCAGCC GAACGACCGA GCGCAGCGAG TCAGTGAGCG AGGAAGCGGA
5901  AGAGCGCCTG ATGCGGTATT TTCTCCTTAC GCATCTGTGC GGTATTTCAC
5951  ACCGCATATG GTGCACTCTC AGTACAATCT GCTCTGATGC CGCATAGTTA
6001  AGCCAGTATA CACTCCGCTA TCGCTACGTG ACTGGGTCAT GGCTGCGCCC
6051  CGACACCCGC CAACACCCGC TGACGCGCCC TGACGGGCTT GTCTGCTCCC
6101  GGCATCCGCT TACAGACAAG CTGTGACCGT CTCCGGGAGC TGCATGTGTC
6151  AGAGGTTTTC ACCGTCATCA CCGAAACGCG CGAGGCAGCT GCGGTAAAGC
6201  TCATCAGCGT GGTCGTGCAG CGATTCACAG ATGTCTGCCT GTTCATCCGC
6251  GTCCAGCTCG TTGAGTTTCT CCAGAAGCGT TAATGTCTGG CTTCTGATAA
6301  AGCGGGCCAT GTTAAGGGCG GTTTTTTCCT GTTTGGTCAC TTGATGCCTC
6351  CGTGTAAGGG GGAATTTCTG TTCATGGGGG TAATGATACC GATGAAACGA
6401  GAGAGGATGC TCACGATACG GGTTACTGAT GATGAACATG CCCGGTTACT
6451  GGAACGTTGT GAGGGTAAAC AACTGGCGGT ATGGATGCGG CGGGACCAGA
6501  GAAAAATCAC TCAGGGTCAA TGCCAGCGCT TCGTTAATAC AGATGTAGGT
6551  GTTCCACAGG GTAGCCAGCA GCATCCTGCG ATGCAGATCC GGAACATAAT
6601  GGTGCAGGGC GCTGACTTCC GCGTTTCCAG ACTTTACGAA ACACGGAAAC
6651  CGAAGACCAT TCATGTTGTT GCTCAGGTCG CAGACGTTTT GCAGCAGCAG
6701  TCGCTTCACG TTCGCTCGCG TATCGGTGAT TCATTCTGCT AACCAGTAAG
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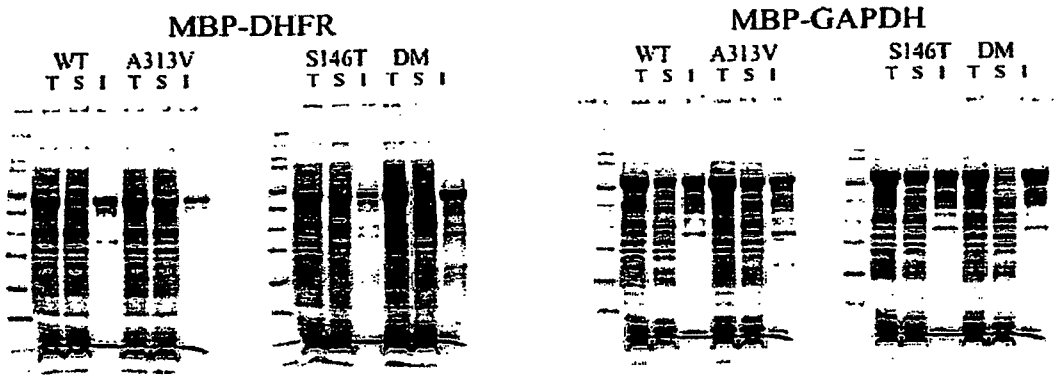

MBP-DHFR
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A313V
S146T
DM
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WT
A313V
S146T
DM
T S I T S I T S I T S I

Figure 6

Figure 7-1 (SEQ ID NO:8)

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 121 ACCGTTGAGC ATCCGGATAA ACTGGAAGAG AAATTCCCAC AGGTTGCGGC AACTGGCGAT
 181 GGCCCTGACA TTATCTTCTG GGCACACGAC CGCTTTGGTG GCTACGCTCA ATCTGGCCTG
 241 TTGGCTGAAA TCACCCCGGA CAAAGCGTTC CAGGACAAGC TGTATCCGTT TACCTGGGAT
 301 GCCGTACGTT ACAACGGCAA GCTGATTGCT TACCCGATCG CTGTTGAAGC GTTATCGCTG
 361 ATTTATAACA AAGATCTGCT GCCGAACCCG CCAAAAACCT GGGAAGAGAT CCCGGCGCTG
 421 GATAAAGAAC TGAAAGCGAA AGGTAAGAGC GCGCTGATGT TCAACCTGCA AGAACCGTAC
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 601 GTTGACCTGA TTAAAAACAA ACACATGAAT GCAGACACCG ATTACTCCAT CGCAGAAGCT
 661 GCCTTTAATA AAGGCGAAAC AGCGATGACC ATCAACGGCC CGTGGGCATG GTCCAACATC
 721 GACACCAGCA AAGTGAATTA TGGTGTAACG GTACTGCCGA CCTTCAAGGG TCAACCATCC
 781 AAACCGTTCG TTGGCGTGCT GAGCGCAGGT ATTAACGCCG CCAGTCCGAA CAAAGAGCTG
 841 GCAAAAGAGT TCCTCGAAAA CTATCTGCTG ACTGATGAAG GTCTGGAAGC GGTTAATAAA
 901 GACAAACCGC TGGGTGCCGT AGCGCTGAAG TCTTACGAGG AAGAGTTGGT GAAAGATCCA
 961 CGTATTGCCG CCACTATGGA AAACGCCCAG AAAGGTGAAA TCATGCCGAA CATCCCGCAG
1021 ATGTCCGCTT TCTGGTATGC CGTGCGTACT GCGGTGATCA ACGCCGCCAG CGGTCGTCAG
1081 ACTGTCGATG AAGCCCTGAA AGACGCGCAG ACTAATTCGA GCTCGGATGA CGATGACAAG
1141 CTCGAGAATT CCGCATTCGG TAGTATGTCG GTTGCCGATT TGGGAAGTTT AACTCGCTTG
1201 GAGGACAAGA TTCGTCTACT GCAAGAAGAT CTCGAATCCG AACGTGAACT TCGAAATAGA
1261 ATCGAACGAG AAAGAGCTGA TCTTAGTGTA CAACTGATTG CATTAACTGA TAGACTTGAA
1321 GATGCTGAGG GTACTACTGA TAGTCAGATT GAATCAAATC GTAAACGTGA AGCAGAATTG
1381 CAAAAATTAC GTAAATTATT GGAAGAATCA CAATTAGAAA ATGAAGATGC AATGAATGTT
1441 TTACGTAAAA AGCATCAAGA TGCATGTCTC GATTACGCTG AACAAATTGA ACAATTACAA
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1561 ACTGCGACAA TTGATCAACT TCAAAAGGAT AAGCATTTGG CGGAAAAAGC AGCGGAACGT
1621 TTTGAAGCGC AAACTATCGA ATTGAGTAAT AAAGTTGAAG ATTTAAATCG ACATGTTAAT
1681 GATTTAGCTC AACAACGTCA ACGTTTACAA GCTGAAAATA ACGATCTTCT CAAAGAGATT
1741 CATGATCAAA AAGTACAATT GGATAATTTG CAACACGTGA AATATCAACT TGCGCAACAA
1801 CTTGAAGAAG CACGTCGACC TGCAGGCAAG CTTGGCACTG GCCGTCGTTT TACAACGTCG
1861 TGAGCGGCCG CTTAATTAAG GCCTTGAATC GAGAATTTAT ACTTAGATAA GTATGTACTT
1921 ACAGGTATAT TTCTATGAGA TACTGATGTA TACATGCATG ATAATATTTA AACGGTTATT
1981 AGTGCCGATT GTCTTGTGCG ATAATGACGT TCCTATCAAA GCAATACACT TACCACCTAT
2041 TACATGGGCC AAGAAAATAT TTTCGAACTT GTTTAGAATA TTAGCACAGA GTATATGATG
2101 ATATCCGTTA GATTATGCAT GATTCATTCC TACAACTTTT TCGTAGCATA AGGATTAATT
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2221 GCAGTGTATC AAAGTAAAAA AAAGATTTTC ACTACATGTT CCTTTTGAAG AAAGAAAATC
2281 ATGGAACATT AGATTTACAA AAATTTAACC ACCGCTGATT AACGATTAGA CCGTTAAGCG
2341 CACAACAGGT TATTAGTACA GAGAAAGCAT TCTGTGGTGT TGCCCCGGAC TTTCTTTTGC
2401 GACATAGGTA AATCGAATAC CATCATACTA TCTTTTCCAA TGACTCCCTA AAGAAAGACT
2461 CTTCTTCGAT GTTGTATACG TTGGAGCATA GGGCAAGAAT TGTGGCTTGA GATCATCCTT
2521 TTGTTGTTTC CGGGTGTACA ATATGGACTT CCTCTTTTCT GGCAACCAAA CCCATACATC
2581 GGGATTCCTA TAATACCTTC GTTGGTCTCC CTAACATGTA GGTGGCGGAG GGGAGATATA
2641 CAATAGAACA GATACCAGAC AAGACATAAT GGGCTAAACA AGACTACACC AATTACACTG
2701 CCTCATTGAT GGTGGTACAT AACGAACTAA TACTGTAGCC CTAGACTTGA TAGCCATCAT
2761 CATATCGAAG TTTCACTACC CTTTTTCCAT TTGCCATCTA TTGAAGTAAT AATAGGCGCA
2821 TGCAACTTCT TTTCTTTTTT TTTCTTTTCT CTCTCCCCCG TTGTTGTCTC ACCATATCCG
2881 CAATGACAAA AAAATGATGG AAGACACTAA AGGAAAAAAT TAACGACAAA GACAGCACCA
2941 ACAGATGTCG TTGTTCCAGA GCTGATGAGG GGTATCTCGA AGCACACGAA ACTTTTTCCT
3001 TCCTTCATTC ACGCACACTA CTCTCTAATG AGCAACGGTA TACGGCCTTC CTTCCAGTTA
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Figure 7-2

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3061 CTTGAATTTG AAATAAAAAA AAGTTTGCTG TCTTGCTATC AAGTATAAAT AGACCTGCAA
3121 TTATTAATCT TTTGTTTCCT CGTCATTGTT CTCGTTCCCT TTCTTCCTTG TTTCTTTTTC
3181 TGCACAATAT TTCAAGCTAT ACCAAGCATA CAATCAAGGA ATTCCGGATC CGCCACCATG
3241 CCTCAATCCT GGGAAGAACT GGCCGCTGAT AAGCGCGCCC GCCTCGCAAA AACCATCCCT
3301 GATGAATGGA AAGTCCAGAC GCTGCCTGCG GAAGACAGCG TTATTGATTT CCCAAAGAAA
3361 TCGGGGATCC TTTCAGAGGC CGAACTGAAG ATCACAGAGG CTTCCGCTGC GGATCTTGTG
3421 TCCAAGCTGG CGGCCGGAGA GTTGACCTCG GTGGAAGTTA CGCTAGCATT CTGTAAACGG
3481 GCAGCAATCG CCCAGCAGTT AACAAACTGC GCCCACGAGT TCTTCCCTGA CGCCGCTCTC
3541 GCGCAGGCAA GGGAACTCGA TGAATACTAC GCAAAGCACA AGAGACCCGT TGGTCCACTC
3601 CATGGCCTCC CCATCTCTCT CAAAGACCAG CTTCGAGTCA AGGGCTACGA AACATCAATG
3661 GGCTACATCT CATGGCTAAA CAAGTACGAC GAAGGGGACT CGGTTCTGAC AACCATGCTC
3721 CGCAAAGCCG GTGCCGTCTT CTACGTCAAG ACCTCTGTCC CGCAGACCCT GATGGTCTGC
3781 GAGACAGTCA ACAACATCAT CGGGCGCACC GTCAACCCAC GCAACAAGAA CTGGTCGTGC
3841 GGCGGCAGTT CTGGTGGTGA GGGTGCGATC GTTGGGATTC GTGGTGGCGT CATCGGTGTA
3901 GGAACGGATA TCGGTGGCTC GATTCGAGTG CCGGCCGCGT TCAACTTCCT GTACGGTCTA
3961 AGGCCGAGTC ATGGGCGGCT GCCGTATGCA AAGATGGCGA ACAGCATGGA GGGTCAGGAG
4021 ACGGTGCACA GCGTTGTCGG GCCGATTACG CACTCTGTTG AGGACCTCCG CCTCTTCACC
4081 AAATCCGTCC TCGGTCAGGA GCCATGGAAA TACGACTCCA AGGTCATCCC CATGCCCTGG
4141 CGCCAGTCCG AGTCGGACAT TATTGCCTCC AAGATCAAGA ACGGCGGGCT CAATATCGGC
4201 TACTACAACT TCGACGGCAA TGTCCTTCCA CACCCTCCTA TCCTGCGCGG CGTGGAAACT
4261 ACCGTCGCCG CACTCGCCAA AGCCGGTCAC ACCGTGACCC CGTGGACGCC ATACAAGCAC
4321 GATTTCGGCC ACGATCTCAT CTCCCATATC TACGCGGCTG ACGGCAGCGC CGACGTAATG
4381 CGCGATATCA GTGCATCCGG CGAGCCGGCG ATTCCAAATA TCAAAGACCT ACTGAACCCG
4441 AACATCAAAG CTGTTAACAT GAACGAGCTC TGGGACACGC ATCTCCAGAA GTGGAATTAC
4501 CAGATGGAGT ACCTTGAGAA ATGGCGGGAG GCTGAAGAAA AGGCCGGGAA GGAACTGGAC
4561 GCCATCATCG CGCCGATTAC GCCTACCGCT GCGGTACGGC ATGACCAGTT CCGGTACTAT
4621 GGGTATGCCT CTGTGATCAA CCTGCTGGAT TTCACGAGCG TGGTTGTTCC GGTTACCTTT
4681 GCGGATAAGA ACATCGATAA GAAGAATGAG AGTTTCAAGG CGGTTAGTGA GCTTGATGCC
4741 CTCGTGCAGG AAGAGTATGA TCCGGAGGCG TACCATGGGG CACCGGTTGC AGTGCAGGTT
4801 ATCGGACGGA GACTCAGTGA AGAGAGGACG TTGGCGATTG CAGAGGAAGT GGGGAAGTTG
4861 CTGGGAAATG TGGTGACTCC ATAGCCCGGG GGGGGCTCGA TCCCCTCGCG AGTTGGTTCA
4921 GCTGCTGCCT GAGGCTGGAC GACCTCGCGG AGTTCTACCG GCAGTGCAAA TCCGTCGGCA
4981 TCCAGGAAAC CAGCAGCGGC TATCCGCGCA TCCATGCCCC CGAACTGCAG GAGTGGGGAG
5041 GCACGATGGC CGCTTTGGTC GATCTAGATT ACGTGGAAGA AAGGTAGTAA AAGTAGTAGT
5101 ATAAGTAGTA AAAAGAGGTA AAAAGAGAAA ACCGGCTACA TACTAGAGAA GCACGTACAC
5161 AAAAACTCAT AGGCACTTCA TCATACGACA GTTTCTTGAT GCATTATAAT AGTGTATTAG
5221 ATATTTTCAG AAATATGCAT AGAACCTCCT CTTGCCTTTA CTTTTTATAC ATAGAACATT
5281 GGCAGATTTA CTTACACTAC TTTGTTTCTA CGCCATTTCT TTTGTTTTCA ACACTTAGAC
5341 AAGTTGTTGA GAACCGGACT ACTAAAAAGC AATGTTCCCA CTGAAAATCA TGTACCTGCA
5401 GGATAATAAC CCCCTAATTC TGCATCGATC CAGTATGTTT TTTTTTCTCT ACTCATTTTT
5461 ACCTGAAGAT AGAGCTTCTA AAACAAAAAA AATCAGTGAT TACATGCATA TTGTGTGTTC
5521 TAGTAACCAA AGGAAAGGAA CAGATAGATA AAATTCCGAG ACTGTCAAAT TAGGTTTTTT
5581 TCTTTTTTTT TGGCGGGAGT CAGTGGGCCG AAATATGTTC TTGGCCTAGA ACTTAATCTG
5641 GTTTGATCAT GCCAATACTT GCCTGAGTGC CCGACTTTTT GCCCACCCTC TTGCCTTCTG
5701 TCATCCTTCA AAACCCACCT GTTTTCCAGC CGTATCTTCG CTCGCATCTA CACATACTGT
5761 GCCATATCTT GTGTGTAGCC GGACGTGACT ATGACCAAAA ACAAACAAGG AGAACTGTTC
5821 GCCGATTTGT AACACTCCTG CATCCATCCA AGTGGGTATG CGCTATGCAA TGTTAAGCTA
5881 GGTCAGGTCA GACCAGGTCC AAGGACAGCA ACTTGACTGT ATGCAACCTT TACCATCTTT
5941 GCACAGAACA TACTTGTAGC TAGCTAGTTA CACTTATGGA CCGAAAAGGC ACCCCACCAT
6001 GTCTGTCCGG CTTTAGAGTA CGGCCGCAGA CCGCTGATTT GCCTTGCCAA GCAGTAGTCA
6061 CAATGCATCG CATGAGCACA CGGGCACGGG CACGGGCACA GGAACCATTG GCAAAAATAC
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Figure 7-3

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6121 CAGATACACT ATACCGACGT ATATCAAGCC CAAGTTTAAA ATTCCTAAAT TTCCGCGGCT
6181 ACTTTTCAAT TCCCTATAGT GAGTCGTATT AAATTCGTAA TCATGTCATA GCTGTTTCCT
6241 GTGTGAAATT GTTATCCGCT CACAATTCCA CACAACATAC GAGCCGGAAG CATAAAGTGT
6301 AAAGCCTGGG GTGCCTAATG AGTGAGCTAA CTCACATTAA TTGCGTTGCG CTCACTGCCC
6361 GCTTTCCAGT CGGGAAACCT GTCGTGCCAG CTGCATTAAT GAATCGGCCA ACGCGCGGGG
6421 AGAGGCGGTT TGCGTATTGG GCGCTCTTCC GCTTCCTCGC TCACTGACTC GCTGCGCTCG
6481 GTCGTTCGGC TGCGGCGAGC GGTATCAGCT CACTCAAAGG CGGTAATACG GTTATCCACA
6541 GAATCAGGGG ATAACGCAGG AAAGAACATG TGAGCAAAAG GCCAGCAAAA GGCCAGGAAC
6601 CGTAAAAAGG CCGCGTTGCT GGCGTTTTTC CATAGGCTCC GCCCCCCTGA CGAGCATCAC
6661 AAAAATCGAC GCTCAAGTCA GAGGTGGCGA AACCCGACAG GACTATAAAG ATACCAGGCG
6721 TTTCCCCCTG GAAGCTCCCT CGTGCGCTCT CCTGTTCCGA CCCTGCCGCT TACCGGATAC
6781 CTGTCCGCCT TTCTCCCTTC GGGAAGCGTG GCGCTTTCTC ATAGCTCACG CTGTAGGTAT
6841 CTCAGTTCGG TGTAGGTCGT TCGCTCCAAG CTGGGCTGTG TGCACGAACC CCCCGTTCAG
6901 CCCGACCGCT GCGCCTTATC CGGTAACTAT CGTCTTGAGT CCAACCCGGT AAGACACGAC
6961 TTATCGCCAC TGGCAGCAGC CACTGGTAAC AGGATTAGCA GAGCGAGGTA TGTAGGCGGT
7021 GCTACAGAGT TCTTGAAGTG GTGGCCTAAC TACGGCTACA CTAGAAGAAC AGTATTTGGT
7081 ATCTGCGCTC TGCTGAAGCC AGTTACCTTC GGAAAAAGAG TTGGTAGCTC TTGATCCGGC
7141 AAACAAACCA CCGCTGGTAG CGGTGGTTTT TTTGTTTGCA AGCAGCAGAT TACGCGCAGA
7201 AAAAAAGGAT CTCAAGAAGA TCCTTTGATC TTTTCTACGG GGTCTGACGC TCAGTGGAAC
7261 GAAAACTCAC GTTAAGGGAT TTTGGTCATG AGATTATCAA AAAGGATCTT CACCTAGATC
7321 CTTTTAAATT AAAAATGAAG TTTTAAATCA ATCTAAAGTA TATATGAGTA AACTTGGTCT
7381 GACAGTTACC AATGCTTAAT CAGTGAGGCA CCTATCTCAG CGATCTGTCT ATTTCGTTCA
7441 TCCATAGTTG CCTGACTCCC CGTCGTGTAG ATAACTACGA TACGGGAGGG CTTACCATCT
7501 GGCCCCAGTG CTGCAATGAT ACCGCGAGAC CCACGCTCAC CGGCTCCAGA TTTATCAGCA
7561 ATAAACCAGC CAGCCGGAAG GGCCGAGCGC AGAAGTGGTC CTGCAACTTT ATCCGCCTCC
7621 ATCCAGTCTA TTAATTGTTG CCGGGAAGCT AGAGTAAGTA GTTCGCCAGT TAATAGTTTG
7681 CGCAACGTTG TTGCCATTGC TACAGGCATC GTGGTGTCAC GCTCGTCGTT TGGTATGGCT
7741 TCATTCAGCT CCGGTTCCCA ACGATCAAGG CGAGTTACAT GATCCCCCAT GTTGTGCAAA
7801 AAAGCGGTTA GCTCCTTCGG TCCTCCGATC GTTGTCAGAA GTAAGTTGGC CGCAGTGTTA
7861 TCACTCATGG TTATGGCAGC ACTGCATAAT TCTCTTACTG TCATGCCATC CGTAAGATGC
7921 TTTTCTGTGA CTGGTGAGTA CTCAACCAAG TCATTCTGAG AATAGTGTAT GCGGCGACCG
7981 AGTTGCTCTT GCCCGGCGTC AATACGGGAT AATACCGCGC CACATAGCAG AACTTTAAAA
8041 GTGCTCATCA TTGGAAAACG TTCTTCGGGG CGAAAACTCT CAAGGATCTT ACCGCTGTTG
8101 AGATCCAGTT CGATGTAACC CACTCGTGCA CCCAACTGAT CTTCAGCATC TTTTACTTTC
8161 ACCAGCGTTT CTGGGTGAGC AAAAACAGGA AGGCAAAATG CCGCAAAAAA GGGAATAAGG
8221 GCGACACGGA AATGTTGAAT ACTCATACTC TTCCTTTTTC AATATTATTG AAGCATTTAT
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8401 AGCGCGGCGG GTGTGGTGGT TACGCGCAGC GTGACCGCTA CACTTGCCAG CGCCCTAGCG
8461 CCCGCTCCTT TCGCTTTCTT CCCTTCCTTT CTCGCCACGT TCGCCGGCTT TCCCCGTCAA
8521 GCTCTAAATC GGGGGCTCCC TTTAGGGTTC CGATTTAGTG CTTTACGGCA CCTCGACCCC
8581 AAAAAACTTG ATTAGGGTGA TGGTTCACGT AGTGGGCCAT CGCCCTGATA GACGGTTTTT
8641 CGCCCTTTGA CGTTGGAGTC CACGTTCTTT AATAGTGGAC TCTTGTTCCA AACTGGAACA
8701 ACACTCAACC CTATCTCGGT CTATTCTTTT GATTTATAAG GGATTTTGCC GATTTCGGCC
8761 TATTGGTTAA AAAATGAGCT GATTTAACAA AAATTTAACG CGAATTTTAA CAAAATATTA
8821 ACGCTTACAA TTTCCATTCG CCATTCAGGC TGCGCAACTG TTGGGAAGGG CGATCGGTGC
8881 GGGCCTCTTC GCTATTACGC CAGCTGGCGA AAGGGGGATG TGCTGCAAGG CGATTAAGTT
8941 GGGTAACGCC AGGGTTTTCC CAGTCACGAC GTTGTAAAAC GACGGCCAGT GCCAAGCTCC
9001 CGCGGGGATC GACTCATAAA ATAGTAACCT TCTAATGCGT ATCTATTGAC TACCAACCAT
9061 TAGTGTGGTT GCAGAAGGCG GAATTCTCCC TTCTTCGAAT TCAGCTTGCT TTTTCATTTT
9121 TTATTTTCCA TTTTTCAGTT TTTGTTTGTG TCGAATTTAG CCAGTTGCTT CTCCAAGATG
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Figure 7-4

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 9181 AAAAAAACCC CTGCGCAGTT TCTGTGCTGC AAGATCCTAA TCGACTTTTC CACCCCCCAC
 9241 AAAAGTAAAT GTTCTTTTGT TACATTCGCG TGGGTAGCTA GCTCCCCGAA TCTTCAAAGG
 9301 ACTTAGGGAC TGCACTACAT CAGAGTGTGT TCACCTGGTT TGCTGCCTGG TTTGAAAGAA
 9361 AAGAGCAGGG AACTCGCGGG TTCCCGGCGA ATAATCATGC GATAGTCCTT TGGCCTTCCA
 9421 AGTCGCATGT AGAGTAGACA ACAGACAGGG AGGGCAGGAA GGATCTTTCA CTGAGATCCT
 9481 GTATCTTGTT GGGTAAGTCG GATGAAAGGG GAATCGTATG AGATTGGAGA GGATGCGGAA
 9541 GAGGTAACGC CTTTTGTTAA CTTGTTTAAT TATTATGGGG CAGGCGAGAG GGGGAGGAAT
 9601 GTATGTGTGT GAGGCGGGCG AGACGGAGCC ATCCAGGCCA GGTAGAAATA GAGAAAGCCG
 9661 AATGTTAGAC AATATGGCAG CGTAGTAGAG TAGGTAGGTA GGCAAGTACT GCTAGCAAAG
 9721 AGGAGAAGGG TAAGCTCACT CTTCGCATTC CACACCGTTA GTGTGTCAGT TTGAACAAAA
 9781 AAACAATCAT CATACCAATT GATGGACTGT GGACTGGCTT TTGGAACGGC TTTTCGGACT
 9841 GCGATTATTC GTGAGGAATC AAGGTAGGAA TTTGGTCATA TTTACGGACA ACAGTGGGTG
 9901 ATTCCCATAT GGAGTAGGAA AACGAGATCA TGGTATCCTC AGATATGTTG CGGAATTCTG
 9961 TTCACCGCAA AGTTCAGGGT GCTCTGGTGG GTTTCGGTTG GTCTTTGCTT TGCTTCTCCC
10021 TTGTCTTGCA TGTTAATAAT AGCCTAGCCT GTGAGCCGAA ACTTAGGGTA GGCTTAGTGT
10081 TGGAACGTAC ATATGTATCA CGTTGACTTG GTTTAACCAG GCGACCTGGT AGCCAGCCAT
10141 ACCCACACAC GTTTTTTGTA TCTTCAGTAT AGTTGTGAAA AGTGTAGCGG AAATTTGTGG
10201 TCCGAGCAAC AGCGTCTTTT TCTAGTAGTG CGGTCGGTTA CTTGGTTGAC ATTGGTATTT
10261 GGACTTTGTT GCTACACCAT TCACTACTTG AAGTCGAGTG TGAAGGGTAT GATTTCTAGT
10321 GGTGAACACC TTTAGTTACG TAATGTTTTC ATTGCTGTTT TACTTGAGAT TTCGATTGAG
10381 AAAAAGGTAT TTAATAGCTC GAATCAATGT GAGAACAGAG AGAAGATGTT CTTCCCTAAC
10441 TCGAAAGGTA TATGAGGCTT GTGTTTCTTA GGAGAATTAT TATTCTTTTG TTATGTTGCG
10501 CTTGTAGTTG GAAAAGGTGA AGAGACAAAA GCTGGAATTG TGAGCGGATA ACAAGCTCAA
10561 CACTTGAAAT TTAGGAAAGA GCAGAATTTG GCAAAAAAAA TAAAAAAAAA ATAAACACAC
10621 ATACTCATCG AG
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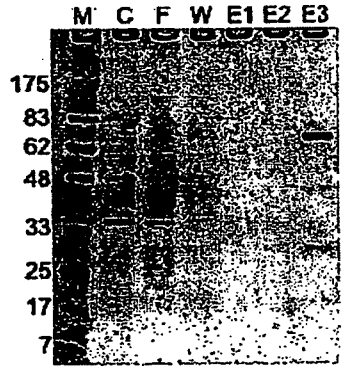


Figure 8