

Figure 1

MSP-1 3D7 gene

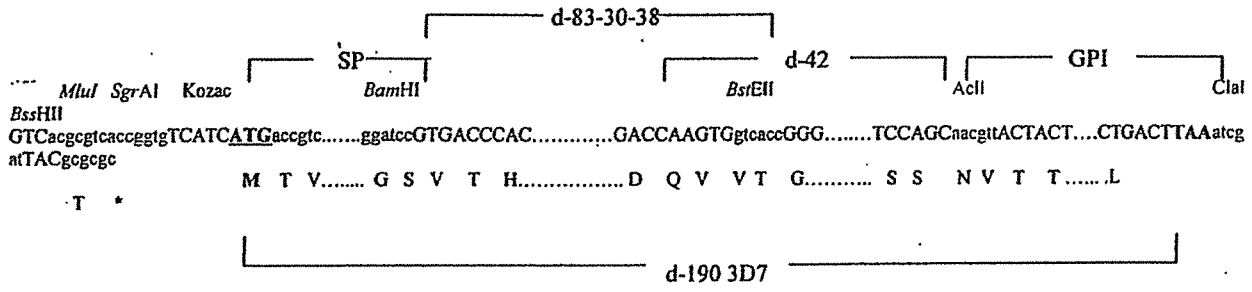


Figure 2

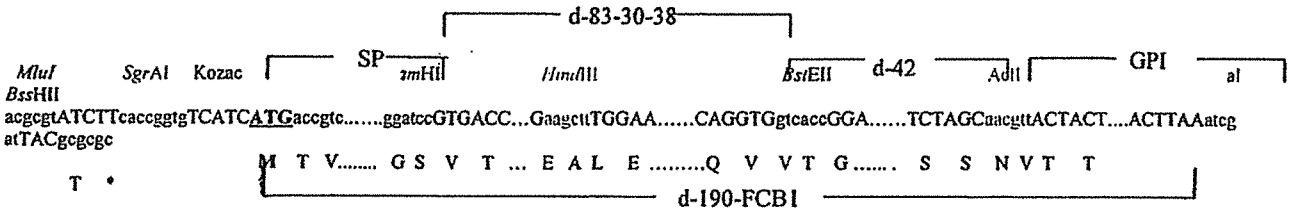

d-83-30-38
MluI
BssHII
SgrAI
Kozac
SP
2mHII
HimdIII
BstEII
d-42
AdII
GPI
aI
acgcgtATCTTcaccggtgTCATCATGaccgtc.....ggatccGTGACC...GaagcttTGGAA.....CAGGTGgtcaccGGA.....TCTAGCaacgttACTACT....ACTTAAatcg
atTACgcgcgc
T
M T V..... G S V T ... E A L E .....Q V V T G..... S S N V T T
d-190-FCB1

Figure 3

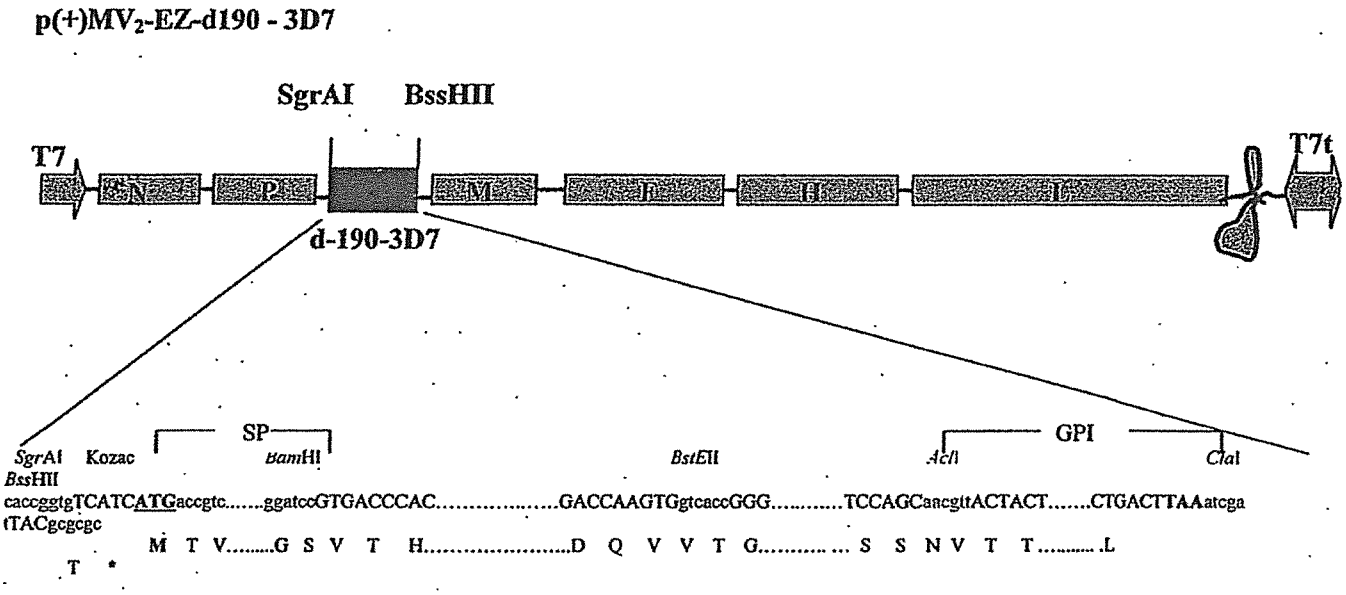

p(+)MV2-EZ-d190 - 3D7
SgrAI
BssHII
T7
N
P
M
H
L
T7t
d-190-3D7
SP
GPI
SgrAI
Kozac
BamHI
BstEII
AclI
ClaI
BssHII
caccggtgTCATCATGaccgtc.....ggatccGTGACCCAC.....GACCAAGTGgtcaccGGG.....TCCAGCaacgttACTACT.....CTGACTTAAatcga
tTACgcgcgc
M T V.....G S V T H.....D Q V V T G..... S S N V T T.....L
T *

Figure 4

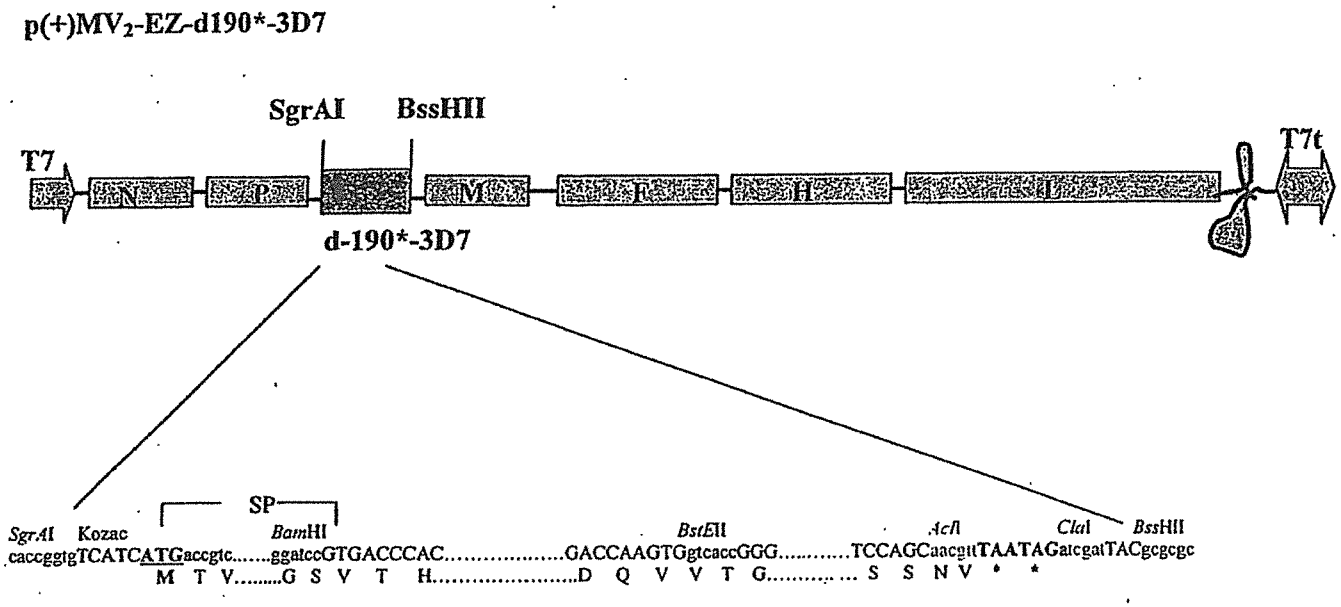

p(+)MV2-EZ-d190*-3D7
SgrAI
BssHII
T7
N
P
M
F
H
L
T7t
d-190*-3D7
SP
SgrAI Kozac
BamHI
BstEII
AclI
ClaI
BssHII
caccggtgTCATCATGaccgtc.....ggatccGTGACCCAC.....GACCAAGTGgtcaccGGG.....TCCAGCaacgttTAATAGatcgatTACgcgcgc
M T V.....G S V T H.....D Q V V T G..... S S N V * *

Figure 5

p(+)MV$_3$-EZ-d190/d190*-3D7

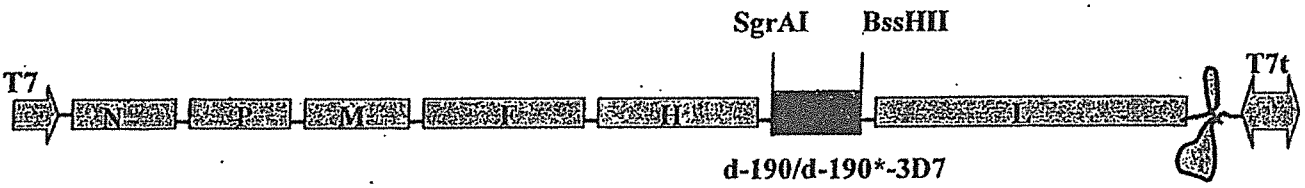


Figure 6

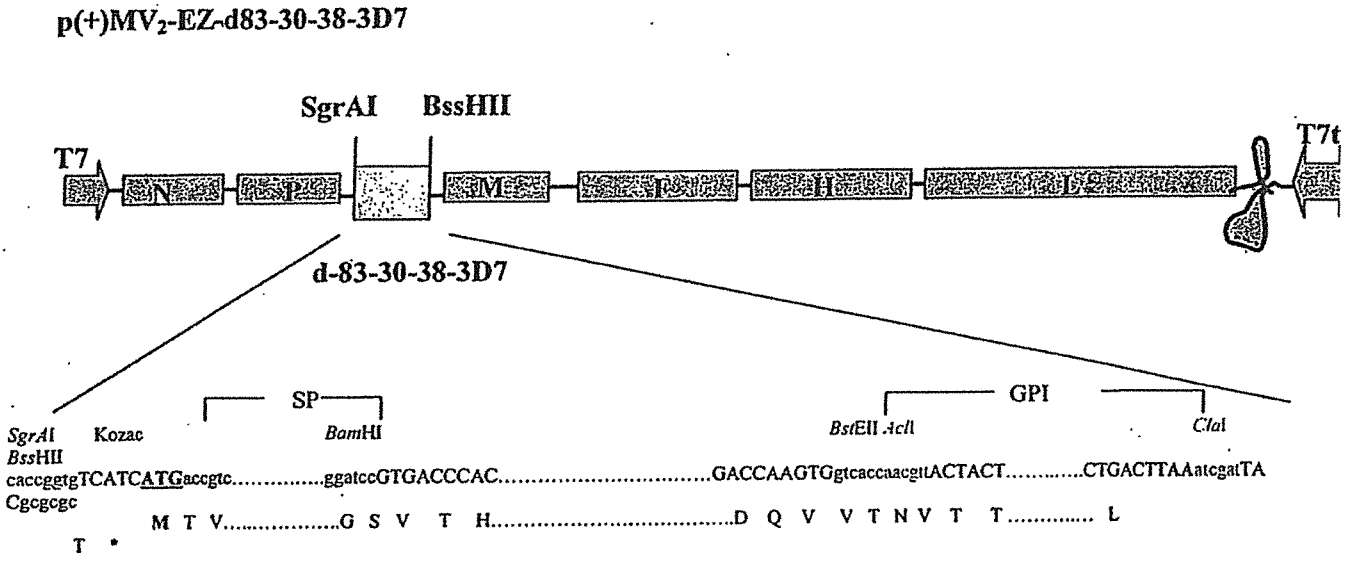

p(+)MV2-EZ-d83-30-38-3D7
SgrAI
BssHII
T7
N
P
M
H
T7t
d-83-30-38-3D7
SP
GPI
SgrAI
BssHII
Kozac
BamHI
BstEII
AclI
ClaI
caccggtgTCATCATGaccgtc.....ggatccGTGACCCAC.....GACCAAGTGgtcaccaacgttACTACT.....CTGACTTAAatcgatTA
Cgcgcgc
M T V.....G S V T H.....D Q V V T N V T T..... L
T *

Figure 7

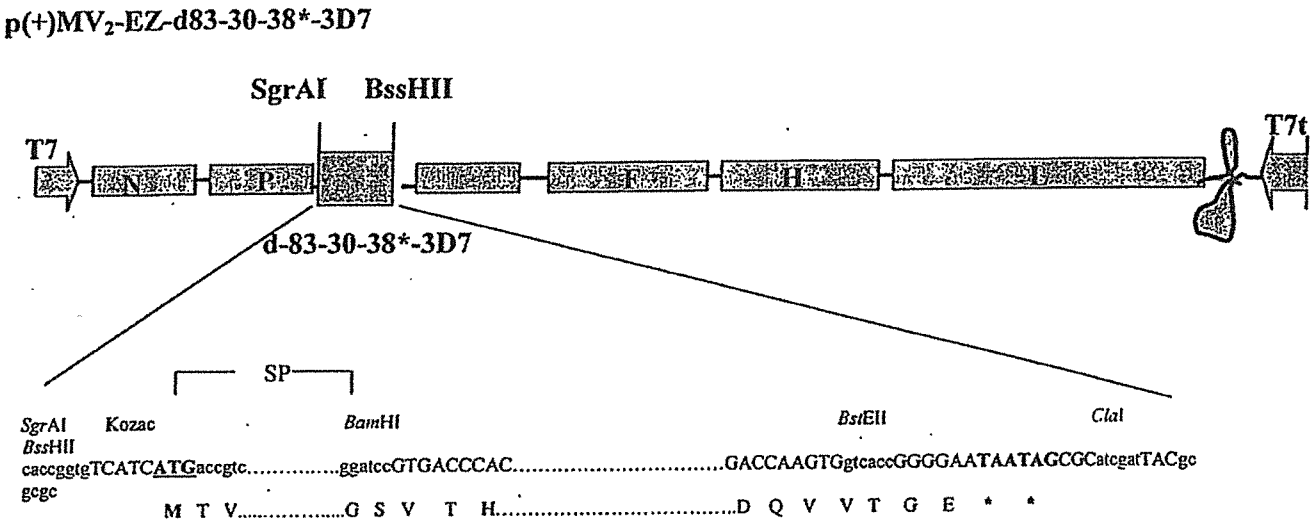

p(+)MV2-EZ-d83-30-38*-3D7
SgrAI
BssHII
T7
T7t
N
P
H
L
d-83-30-38*-3D7
SP
SgrAI
BssHII
Kozac
BamHI
BstEII
ClaI
caccggtgTCATCATGaccgtc.....ggatccGTGACCCAC.....GACCAAGTGgtcaccGGGGAATAATAGCGCatcgatTACgc
gcgc
M T V.....G S V T H.....D Q V V T G E * *

Figure 8

p(+)MV$_3$-EZ-d-83-30-38/ d-83-30-38*-3D7

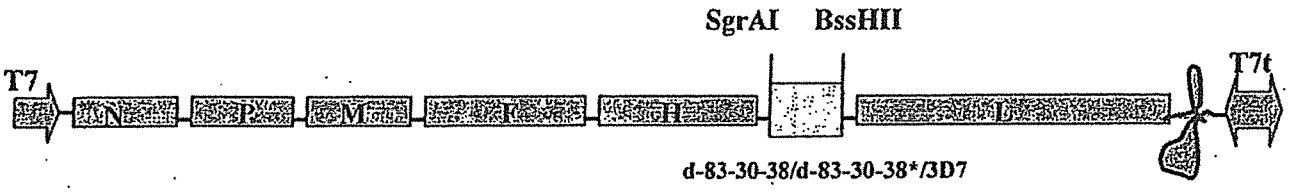


Figure 9

p(+)MV$_2$-EZ-d-42-3D7

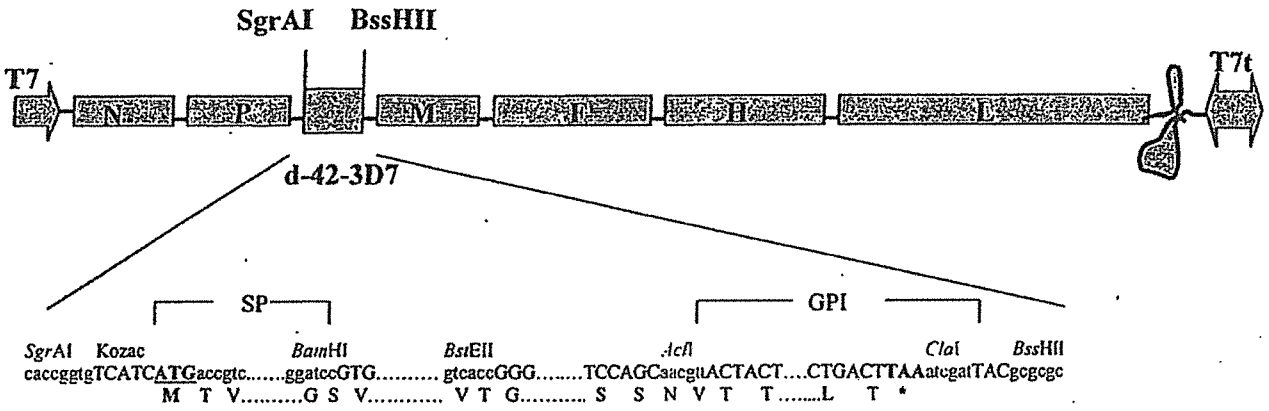


Figure 10

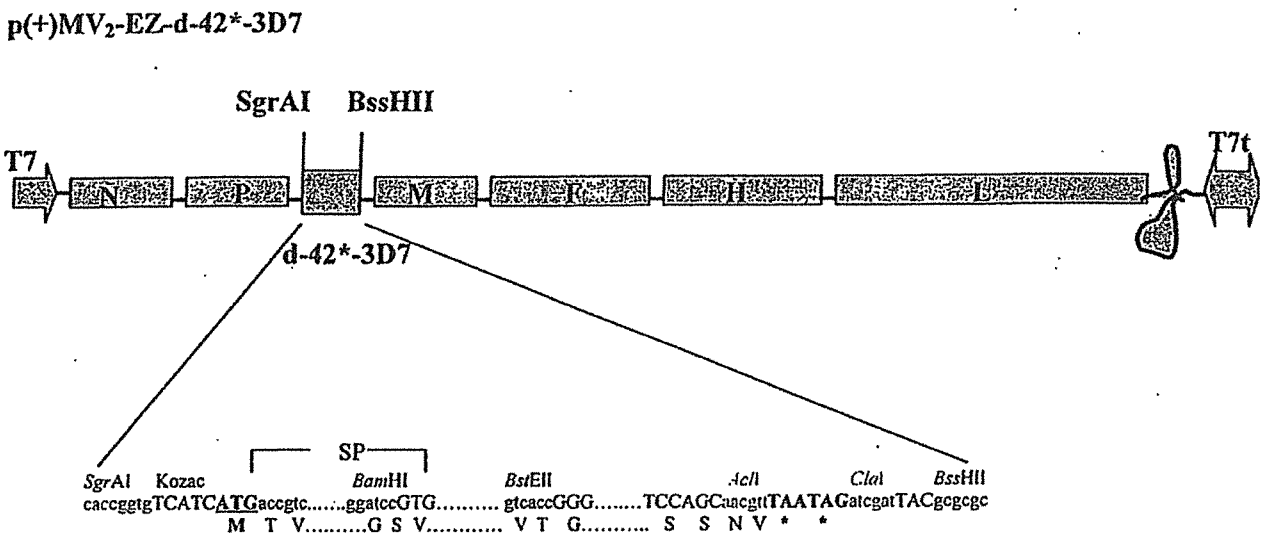

p(+)MV2-EZ-d-42*-3D7
SgrAI
BssHII
T7
T7t
N
P
M
H
d-42*-3D7
SP
SgrAI Kozac
BamHI
BstEII
AclI
ClaI
BssHII
caccggtgTCATCATGaccgtc.....ggatccGTG..... gtcaccGGG.....TCCAGCaacgttTAATAGatcgatTACgcgcgc
M T V.....G S V..... V T G..... S S N V * *

Figure 11

p(+)MV$_3$-EZ-d-42/d-42*-3D7

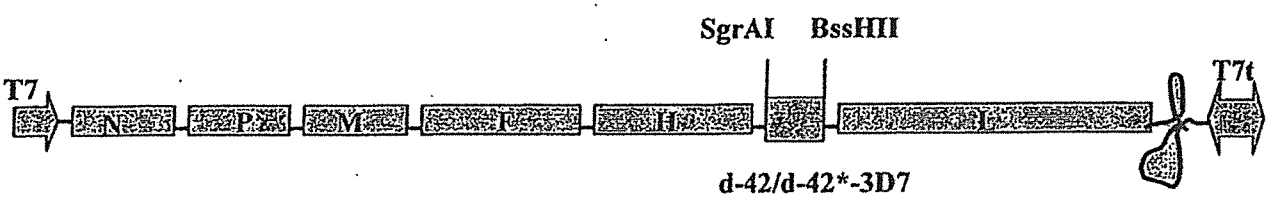


Figure 12

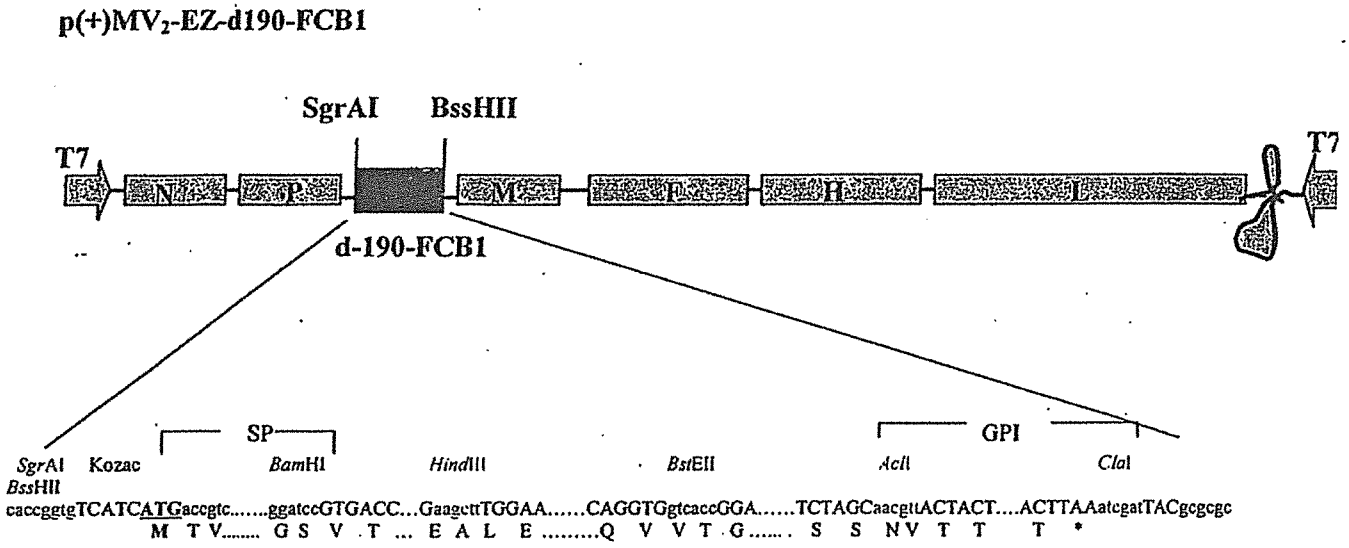

p(+)MV2-EZ-d190-FCB1
SgrAI
BssHII
T7
N
P
M
F
H
L
T7
d-190-FCB1
SP
GPI
SgrAI
BssHII
Kozac
BamHI
HindIII
BstEII
AclI
ClaI
caccggtgTCATCATGaccgtc.....ggatccGTGACC...GaagcttTGGAA.....CAGGTGgtcaccGGA.....TCTAGCaacgttACTACT....ACTTAAatcgatTACgcgcgc
M T V..... G S V T ... E A L E .....Q V V T G..... S S NV T T T *

Figure 13

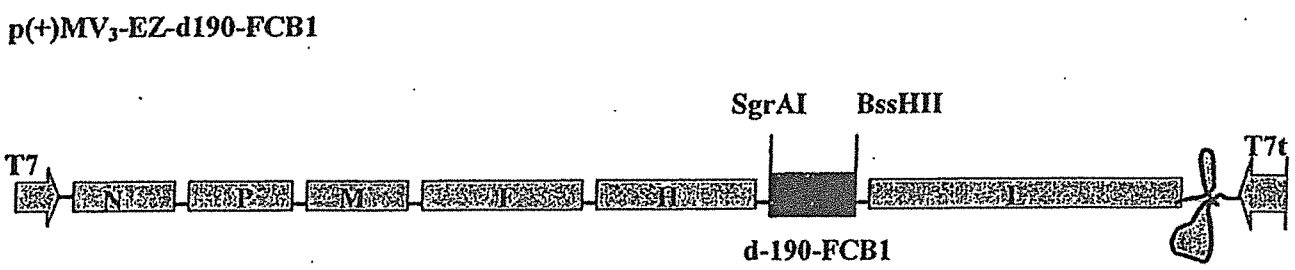


Figure 14

CS gene

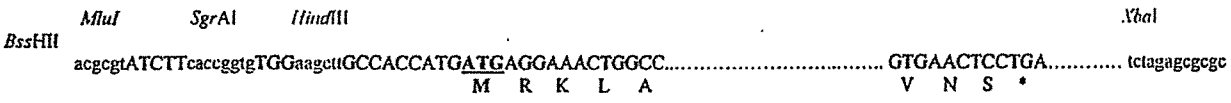


Figure 15

p(+)MV$_2$-EZ-CS

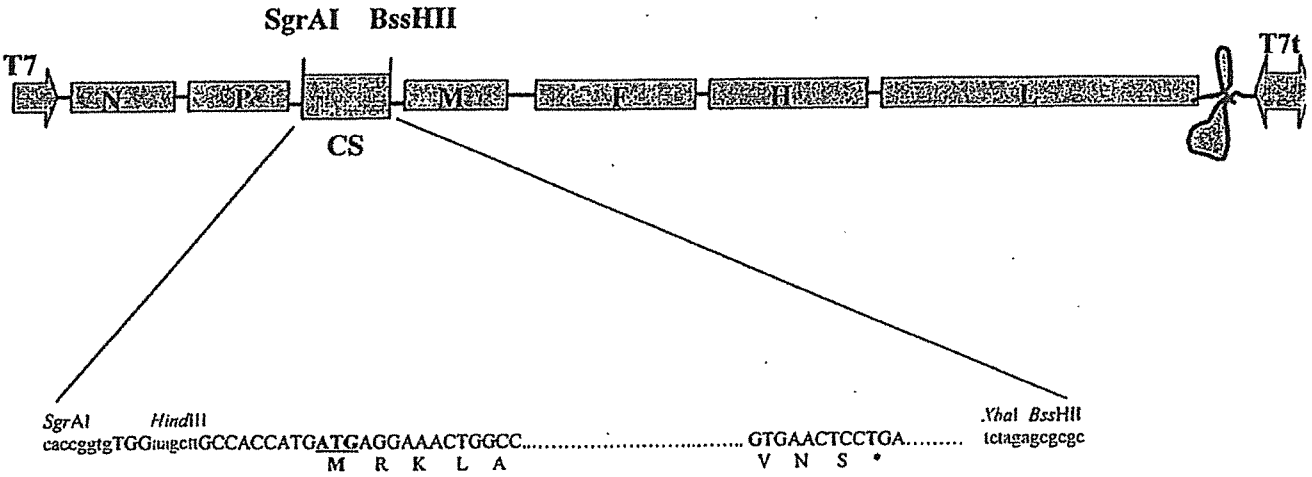


Figure 16

p(+)MV$_3$-EZ-CS

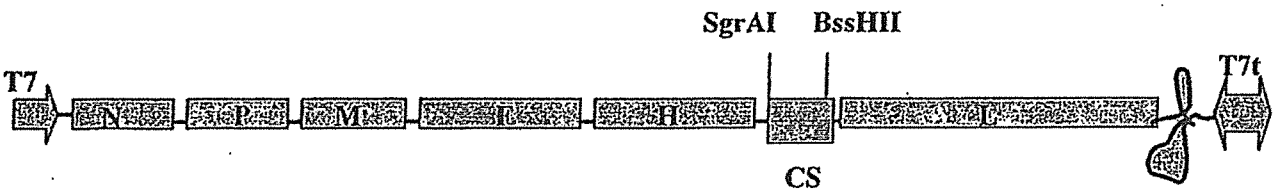


Figure 17

DiCo1 complete gene

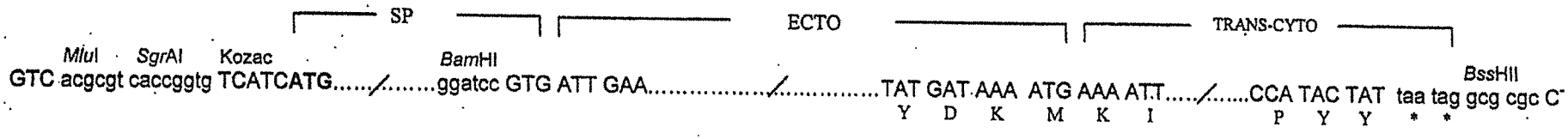


Figure 18

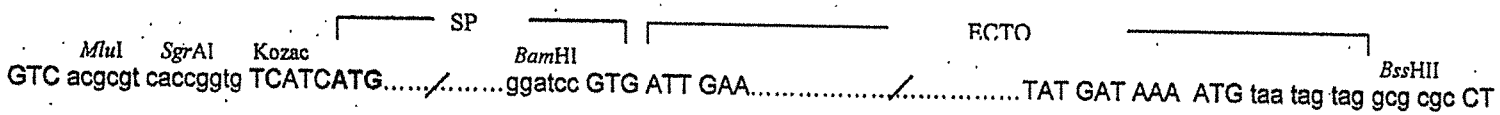

SP
ECTO
MluI
SgrAI
Kozac
BamHI
BssHII
GTC acgcgt caccggtg TCATCATG...../...../.....ggatcc GTG ATT GAA...../...../.....TAT GAT AAA ATG taa tag tag gcg cgc CT

Figure 19

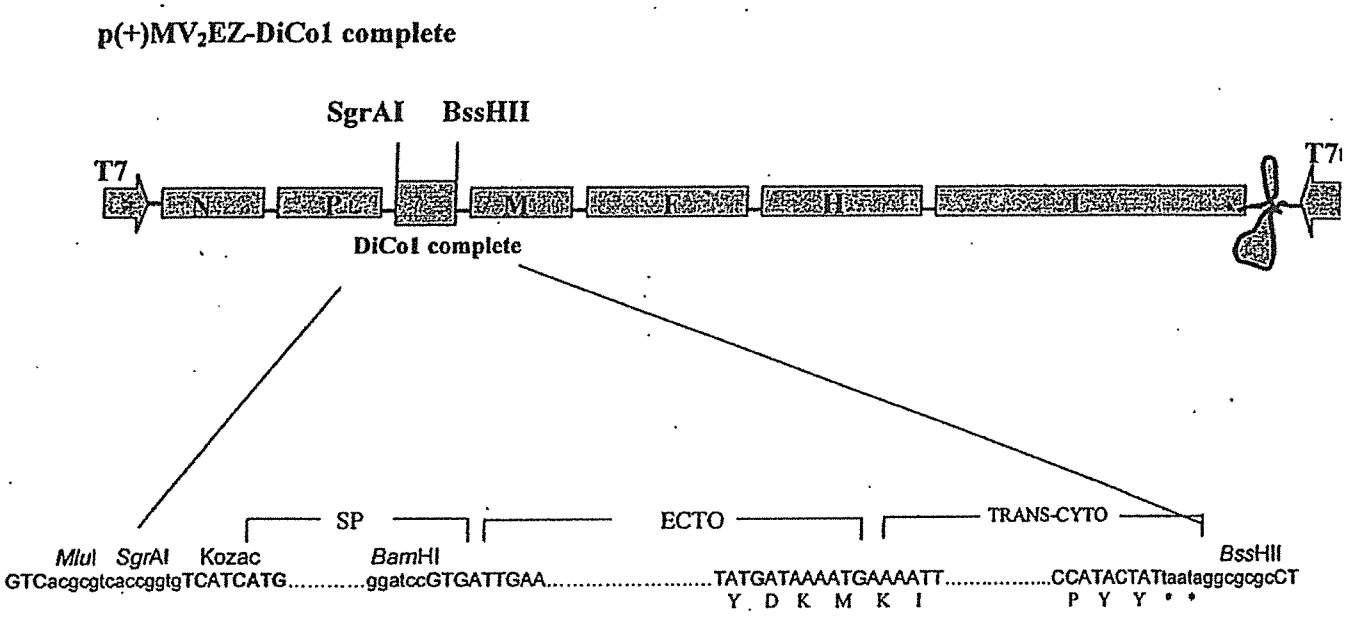

p(+)MV2EZ-DiCo1 complete
SgrAI
BssHII
T7
N
P/C
M
H
L
T7
DiCo1 complete
SP
ECTO
TRANS-CYTO
MluI SgrAI Kozac
BamHI
BssHII
GTCacgcgtcaccggtgTCATCATG.....ggatccGTGATTGAA.....TATGATAAAATGAAAATT.....CCATACTATtaataggcgcgcCT
Y D K M K I
P Y Y * *

Figure 20

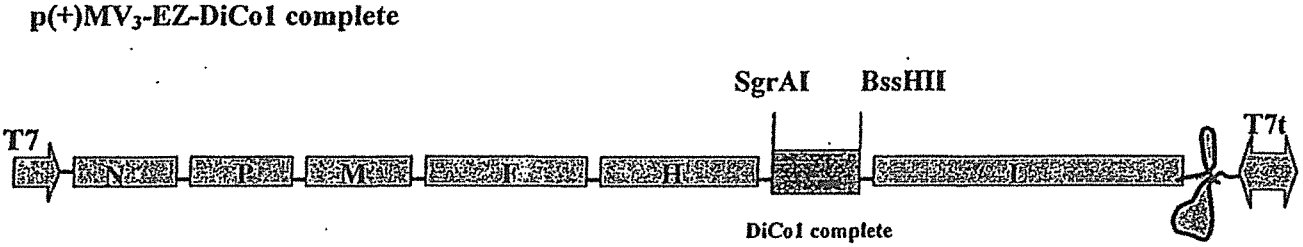

p(+)MV3-EZ-DiCo1 complete
SgrAI
BssHII
T7
N
P
M
H
L
T7t
DiCo1 complete

Figure 21

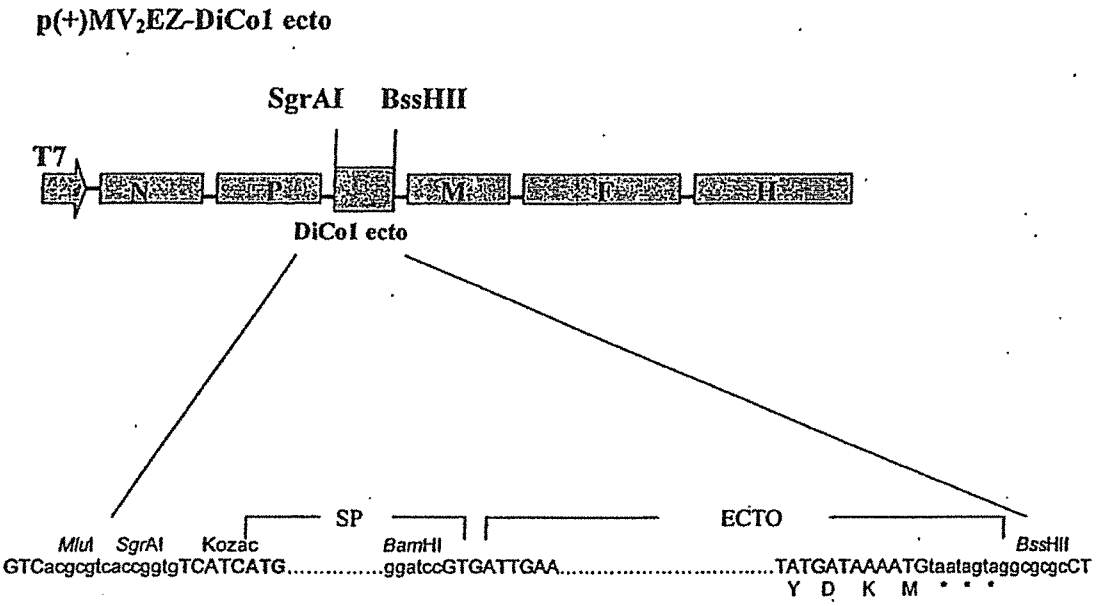

p(+)MV2EZ-DiCo1 ecto
SgrAI
BssHII
T7
N
P
M
H
DiCo1 ecto
SP
ECTO
MluI
SgrAI
Kozac
BamHI
BssHII
GTCacgcgtcaccggtgTCATCATG.....ggatccGTGATTGAA.....TATGATAAAATGtaatagtaggcgcgcCT
Y D K M • • •

Figure 22

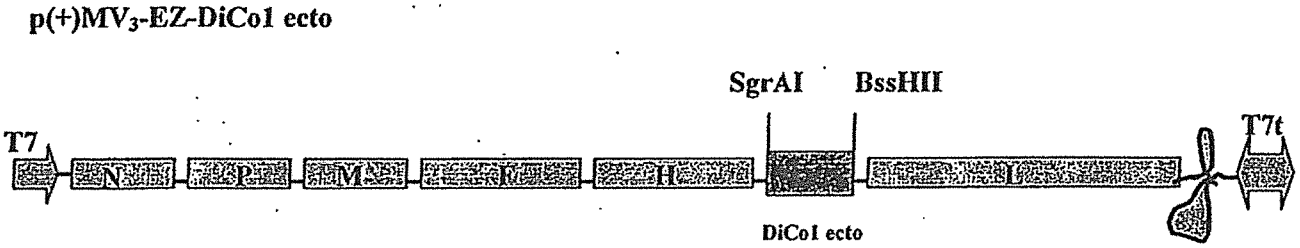


Figure 23

```
          |   10      |   20      |   30      |   40      |   50      |   60      |   70      |
        80      |   90      |  100
      1 CACCTAAATT GTAAGCGTTA ATATTTTGTT AAAATTCGCG TTAAATTTTT GTTAAATCAG CTCATTTTTT
AACCAATAGG CCGAAATCGG CAAAATCCCT 100
    101 TATAAATCAA AAGAATAGAC CGAGATAGGG TTGAGTGTTG TTCCAGTTTG GAACAAGAGT CCACTATTAA
AGAACGTGGA CTCCAACGTC AAAGGGCGAA 200
    201 AAACCGTCTA TCAGGGCGAT GGCCCACTAC GTGAACCATC ACCCTAATCA AGTTTTTTGG GGTCGAGGTG
CCGTAAAGCA CTAAATCGGA ACCCTAAAGG 300
    301 GAGCCCCCGA TTTAGAGCTT GACGGGGAAA GCCggccatt taggccaTAG GGCGCTGGCA AGTGTAGCGG
TCACGCTGCG CGTAACCACC ACACCCGCCG 400
    401 CGCTTAATGC GCCGCTACAG GGCGCGTCCC ATTCGCCATT CAGGCTGCGC AACTGTTGGG AAGGGCGATC
GGTGCGGGCC TCTTCGCTAT TACGCCAGCT 500
    501 GGCGAAAGGG GGATGTGCTG CAAGGCGATT AAGTTGGGTA ACGCCAGGGT TTTCCCAGTC ACGACGTTGT
AAAACGACGG CCAGTGAATT Gtaatacgac 600
    601 tcactataAC CAAACAAAGT TGGGTAAGGA TAGTTCAATC AATGATCATC TTCTAGTGCA CTTAGGATTC
AAGATCCTAT TATCAGGGAC AAGAGCAGGA 700
    701 TTAGGGATAT CTGAGATGGC CACACTTTTA AGGAGCTTAG CATTGTTCAA AAGAAACAAG GACAAACCAC
CCATTACATC AGGATCCGGT GGAGCCATCA 800
    801 GAGGAATCAA ACACATTATT ATAGTACCAA TCCCTGGAGA TTCCTCAATT ACCACTCGAT CCAGACTTCT
GGACCGGTTG GTCAGGTTAA TTGGAAACCC 900
    901 GGATGTGAGC GGGCCCAAAC TAACAGGGGC ACTAATAGGT ATATTATCCT TATTTGTGGA GTCTCCAGGT
CAATTGATTC AGAGGATCAC CGATGACCCT 1000
   1001 GACGTTAGCA TAAGGCTGTT AGAGGTTGTC CAGAGTGACC AGTCACAATC TGGCCTTACC TTCGCATCAA
GAGGTACCAA CATGGAGGAT GAGGCGGACC 1100
   1101 AATACTTTTC ACATGATGAT CCAATTAGTA GTGATCAATC CAGGTTCGGA TGGTTCGAGA ACAAGGAAAT
CTCAGATATT GAAGTGCAAG ACCCTGAGGG 1200
   1201 ATTCAACATG ATTCTGGGTA CCATCCTAGC CCAAATTTGG GTCTTGCTCG CAAAGGCGGT TACGGCCCCA
GACACGGCAG CTGATTCGGA GCTAAGAAGG 1300
   1301 TGGATAAAGT ACACCCAACA AAGAAGGGTA GTTGGTGAAT TTAGATTGGA GAGAAAATGG TTGGATGTGG
TGAGGAACAG GATTGCCGAG GACCTCTCCT 1400
   1401 TACGCCGATT CATGGTCGCT CTAATCCTGG ATATCAAGAG AACACCCGGA AACAAACCCA GGATTGCTGA
AATGATATGT GACATTGATA CATATATCGT 1500
   1501 AGAGGCAGGA TTAGCCAGTT TTATCCTGAC TATTAAGTTT GGGATAGAAA CTATGTATCC TGCTCTTGGA
CTGCATGAAT TTGCTGGTGA GTTATCCACA 1600
   1601 CTTGAGTCCT TGATGAACCT TTACCAGCAA ATGGGGGAAA CTGCACCCTA CATGGTAATC CTGGAGAACT
CAATTCAGAA CAAGTTCAGT GCAGGATCAT 1700
   1701 ACCCTCTGCT CTGGAGCTAT GCCATGGGAG TAGGAGTGGA ACTTGAAAAC TCCATGGGGG GTTTGAACTT
TGGCCGATCT TACTTTGATC CAGCATATTT 1800
   1801 TAGATTAGGG CAAGAGATGG TAAGGAGGTC AGCTGGAAAG GTCAGTTCCA CATTGGCATC TGAACTCGGT
ATCACTGCCG AGGATGCAAG GCTTGTTTCA 1900
   1901 GAGATTGCAA TGCATACTAC TGAGGACAAG ATCAGTAGAG CGGTTGGACC CAGACAAGCC CAAGTATCAT
TTCTACACGG TGATCAAAGT GAGAATGAGC 2000
   2001 TACCGAGATT GGGGGGCAAG GAAGATAGGA GGGTCAAACA GAGTCGAGGA GAAGCCAGGG AGAGCTACAG
AGAAACCGGG CCCAGCAGAG CAAGTGATGC 2100
   2101 GAGAGCTGCC CATCTTCCAA CCGGCACACC CCTAGACATT GACACTGCAT CGGAGTCCAG CCAAGATCCG
CAGGACAGTC GAAGGTCAGC TGACGCCCTG 2200
   2201 CTTAGGCTGC AAGCCATGGC AGGAATCTCG GAAGAACAAG GCTCAGACAC GGACACCCCT ATAGTGTACA
ATGACAGAAA TCTTCTAGAC TAGGTGCGAG 2300
   2301 AGGCCGAGGG CCAGAACAAC ATCCGCCTAC CCTCCATCAT TGTTATAAAA AACTTAGGAA CCAGGTCCAC
ACAGCCGCCA GCCCATCAAC CATCCACTCC 2400
   2401 CACGATTGGA GCCAATGGTA GAAGAGCAGG CACGCCATGT CAAAAACGGA CTGGAATGCA TCCGGGCTCT
CAAGGCCGAG CCCATCGGCT CACTGGCCAT 2500
   2501 CGAGGAAGCT ATGGCAGCAT GGTCAGAAAT ATCAGACAAC CCAGGACAGG AGCGAGCCAC CTGCAGGGAA
GAGAAGGCAG GCAGTTCGGG TCTCAGAAAA 2600
   2601 CCATGCCTCT CAGCAATTGG ATCAACTGAA GGCGGTGCAC CTCGCATCCG CGGTCAGGGA CCTGGAGAGA
GCGATGACGA CGCTGAAACT TTGGGAATCC 2700
   2701 CCCCAAGAAA TCTCCAGGCA TCAAGCACTG GGTTACAGTG TTATTACGTT TATGATCACA GCGGTGAAGC
GGTTAAGGGA ATCCAAGATG CTGACTCTAT 2800
   2801 CATGGTTCAA TCAGGCCTTG ATGGTGATAG CACCCTCTCA GGAGGAGACA ATGAATCTGA AAACAGCGAT
GTGGATATTG GCGAACCTGA TACCGAGGGA 2900
   2901 TATGCTATCA CTGACCGGGG ATCTGCTCCC ATCTCTATGG GGTTCAGGGC TTCTGATGTT GAAACTGCAG
AAGGAGGGGA GATCCACGAG CTCCTGAGAC 3000
   3001 TCCAATCCAG AGGCAACAAC TTTCCGAAGC TTGGGAAAAC TCTCAATGTT CCTCCGCCCC CGGACCCCGG
TAGGGCCAGC ACTTCCGGGA CACCCATTAA 3100
   3101 AAAGGGCACA GACGCGAGAT TAGCCTCATT TGGAACGGAG ATCGCGTCTT TATTGACAGG TGGTGCAACC
CAATGTGCTC GAAAGTCACC CTCGGAACCA 3200
   3201 TCAGGGCCAG GTGCACCTGC GGGGAATGTC CCCGAGTGTG TGAGCAATGC CGCACTGATA CAGGAGTGGA
CACCCGAATC TGGTACCACA ATCTCCCCGA 3300
   3301 GATCCCAGAA TAATGAAGAA GGGGGAGACT ATTATGATGA TGAGCTGTTC TCTGATGTCC AAGATATTAA
AACAGCCTTG GCCAAAATAC ACGAGGATAA 3400
```

Figure 24 (Contd..)

3401 TCAGAAGATA ATCTCCAAGC TAGAATCACT GCTGTTATTG AAGGGAGAAG TTGAGTCAAT TAAGAAGCAG
ATCAACAGGC AAAATATCAG CATATCCACC 3500
3501 CTGGAAGGAC ACCTCTCAAG CATCATGATC GCCATTCCTG GACTTGGGAA GGATCCCAAC GACCCCACTG
CAGATGTCGA AATCAATCCC GACTTGAAAC 3600
3601 CCATCATAGG CAGAGATTCA GGCCGAGCAC TGGCCGAAGT TCTCAAGAAA CCCGTTGCCA GCCGACAACT
CCAAGGAATG ACAAATGGAC GGACCAGTTC 3700
3701 CAGAGGACAG CTGCTGAAGG AATTTCAGCT AAAGCCGATC GGGAAAAAGA TGAGCTCAGC CGTCGGGTTT
GTTCCTGACA CCGGCCCTGC ATCACGCAGT 3800
3801 GTAATCCGCT CCATTATAAA ATCCAGCCGG CTAGAGGAGG ATCGGAAGCG TTACCTGATG ACTCTCCTTG
ATGATATCAA AGGAGCCAAT GATCTTGCCA 3900
3901 AGTTCCACCA GATGCTGATG AAGATAATAA TGAAGTAGCT ACAGCTCAAC TTACCTGCCA ACCCCATGCC
AGTCGACCCA actagtctac cctccatcat 4000
4001 tgttataaaa aacttaggaa ccaggtccac acagccgcca gcccatcaAc gcgTATCTTc accggtgATC
TATacgtagc gcgcATGagt aaaggagaag 4100
4101 aacttttcac tggagttgtc ccaattcttg ttgaattaga tggtgatgtt aatgggcaca aattttctgt
cagtggagag ggtgaaggtg atgcaacata 4200
4201 cggaaaactt acccttaaat ttatttgcac tactggaaaa ctacctgttc catggccaac acttgtcact
actttcacct atggtgttca atgcttttca 4300
4301 agatacccag atcatatgaa acggcatgac tttttcaaga gtgccatgcc cgaaggttac gtacaggaaa
gaactatatt tttcaaagat gacgggaact 4400
4401 acaagacacg tgctgaagtc aagtttgaag gtgataccct tgttaataga atcgagttaa aaggtattga
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4501 caaattggaa tacaactata actcacacaa tgtatacatc atggcagaca aacaaaagaa tggaatcaga
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4601 gatggaagcg ttcaactagc agaccattat caacaaaata ctccaattgg cgatggccct gtccttttac
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CAAAGTGATT GCCTCCCAAG TTCCACAATG 4900
4901 ACAGAGATCT ACGACTTCGA CAAGTCGGCA TGGGACATCA AAGGGTCGAT CGCTCCGATA CAACCCACCA
CCTACAGTGA TGGCAGGCTG GTGCCCCAGG 5000
5001 TCAGAGTCAT AGATCCTGGT CTAGGCGACA GGAAGGATGA ATGCTTTATG TACATGTTTC TGCTGGGGGT
TGTTGAGGAC AGGGATTCCC TAGGGCCTCC 5100
5101 AATCGGGCGA GCATTTGGGT CCCTGCCCTT AGGTGTTGGC AGATCCACAG CAAAGCCCGA AAAACTCCTC
AAAGAGGCCA CTGAGCTTGA CATAGTTGTT 5200
5201 AGACGTACAG CAGGGCTCAA TGAAAAACTG GTGTTCTACA ACAACACCCC ACTAACTCTC CTCACACCTT
GGAGAAAGGT CCTAACAACA GGGAGTGTCT 5300
5301 TCAACGCAAA CCAAGTGTGC AATGCGGTTA ATCTGATACC GCTCGATACC CCGCAGAGGT TCCGTGTTGT
TTATATGAGC ATCACCCGTC TTTCGGATAA 5400
5401 CGGGTATTAC ACCGTTCCTA GAAGAATGCT GGAATTCAGA TCGGTCAATG CAGTGGCCTT CAACCTGCTG
GTGACCCTTA GGATTGACAA GGCGATAGGC 5500
5501 CCTGGGAAGA TCATCGACAA TACAGAGCAA CTTCCTGAGG CAACATTTAT AGTCCACATC GGGAACTTCA
GGAGAAAGAA GAGTGAAGTC TACTCTGCCG 5600
5601 ATTATTGCAA AATGAAAATC GAAAAGATGG GCCTGGTTTT TGCACTTGGT GGGATAGGGG GCACCAGTCT
TCACATTAGA AGCACAGGCA AAATGAGCAA 5700
5701 GACTCTCAAT GCACAACTCG GGTTCAAGAA GACCTTATGT TACCCGCTGA TGGATATCAA TGAAGACCTT
AATCGATTAC TCTGGAGGAG CAGATGCAAG 5800
5801 ATAGTAAGAA TCCAGGCAGT TTTGCAGCCA TCAGTTCCTC AAGAATTCCG CATTTACGAC GACGTGATCA
TAAATGATGA CCAAGGACTA TTCAAAGTTC 5900
5901 TGTAGACCGT AGTGCCCAGC AATGCCCGAA AACGACCCCC CTCACAATGA CAGCCAGAAG GCCCGGACAA
AAAAGCCCCC TCCGAAAGAC TCCACGGACC 6000
6001 AAGCGAGAGG CCAGCCAGCA GCCGACGGCA AGCGCGAACA CCAGGCGGCC CCAGCACAGA ACAGCCCTGA
CACAAGGCCA CCACCAGCCA CCCCAATCTG 6100
6101 CATCCTCCTC GTGGGACCCC CGAGGACCAA CCCCCAAGGC TGCCCCCGAT CCAAACCACC AACCGCATCC
CCACCACCCC CGGGAAAGAA ACCCCCAGCA 6200
6201 ATTGGAAGGC CCCTCCCCCT CTTCCTCAAC ACAAGAACTC CACAACCGAA CCGCACAAGC GACCGAGGTG
ACCCAACCGC AGGCATCCGA CTCCCTAGAC 6300
6301 AGATCCTCTC TCCCCGGCAA ACTAAACAAA ACTTAGGGCC AAGGAACATA CACACCCAAC AGAACCCAGA
CCCCGGCCCA CGGCGCCGCG CCCCCAACCC 6400
6401 CCGACAACCA GAGGGAGCCC CCAACCAATC CCGCCGGCTC CCCCGGTGCC CACAGGCAGG GACACCAACC
CCCGAACAGA CCCAGCACCC AACCATCGAC 6500
6501 AATCCAAGAC GGGGGGGCCC CCCCAAAAAA AAGCCCCCAG GGGCCGACAG CCAGCACCGC GAGGAAGCCC
ACCCACCCCA CACACGACCA CGGCAACCAA 6600
6601 ACCAGAACCC AGACCACCCT GGGCCACCAG CTCCCAGACT CGGCCATCAC CCCGCAGAAA GGAAAGGCCA
CAACCCGCGC ACCCCAGCCC CGATCCGGCG 6700
6701 GGGAGCCACC CAACCCGAAC CAGCACCCAA GAGCGATCCC CGAAGGACCC CCGAACCGCA AAGGACATCA
GTATCCCACA GCCTCTCCAA GTCCCCCGGT 6800

Figure 24 (Contd..)

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  6801 CTCCTCCTCT TCTCGAAGGG ACCAAAAGAT CAATCCACCA CACCCGACGA CACTCAACTC CCCACCCCTA
AAGGAGACAC CGGGAATCCC AGAATCAAGA 6900
  6901 CTCATCCAAT GTCCATCATG GGTCTCAAGG TGAACGTCTC TGCCATATTC ATGGCAGTAC TGTTAACTCT
CCAAACACCC ACCGGTCAAA TCCATTGGGG 7000
  7001 CAATCTCTCT AAGATAGGGG TGGTAGGAAT AGGAAGTGCA AGCTACAAAG TTATGACTCG TTCCAGCCAT
CAATCATTAG TCATAAAATT AATGCCCAAT 7100
  7101 ATAACTCTCC TCAATAACTG CACGAGGGTA GAGATTGCAG AATACAGGAG ACTACTGAGA ACAGTTTTGG
AACCAATTAG AGATGCACTT AATGCAATGA 7200
  7201 CCCAGAATAT AAGACCGGTT CAGAGTGTAG CTTCAAGTAG GAGACACAAG AGATTTGCGG GAGTAGTCCT
GGCAGGTGCG GCCCTAGGCG TTGCCACAGC 7300
  7301 TGCTCAGATA ACGGCCGGCA TTGCACTTCA CCAGTCCATG CTGAACTCTC AAGCCATCGA CAATCTGAGA
GCGAGCCTGG AAACTACTAA TCAGGCAATT 7400
  7401 GAGGCAATCA GACAAGCAGG GCAGGAGATG ATATTGGCTG TTCAGGGTGT CCAAGACTAC ATCAATAATG
AGCTGATACC GTCTATGAAC CAACTATCTT 7500
  7501 GTGATTTAAT CGGCCAGAAG CTCGGGCTCA AATTGCTCAG ATACTATACA GAAATCCTGT CATTATTTGG
CCCCAGTTTA CGGGACCCCA TATCTGCGGA 7600
  7601 GATATCTATC CAGGCTTTGA GCTATGCGCT TGGAGGAGAC ATCAATAAGG TGTTAGAAAA GCTCGGATAC
AGTGGAGGTG ATTTACTGGG CATCTTAGAG 7700
  7701 AGCAGAGGAA TAAAGGCCCG GATAACTCAC GTCGACACAG AGTCCTACTT CATTGTCCTC AGTATAGCCT
ATCCGACGCT GTCCGAGATT AAGGGGGTGA 7800
  7801 TTGTCCACCG GCTAGAGGGG GTCTCGTACA ACATAGGCTC TCAAGAGTGG TATACCACTG TGCCCAAGTA
TGTTGCAACC CAAGGGTACC TTATCTCGAA 7900
  7901 TTTTGATGAG TCATCGTGTA CTTTCATGCC AGAGGGGACT GTGTGCAGCC AAAATGCCTT GTACCCGATG
AGTCCTCTGC TCCAAGAATG CCTCCGGGGG 8000
  8001 TACACCAAGT CCTGTGCTCG TACACTCGTA TCCGGGTCTT TTGGGAACCG GTTCATTTTA TCACAAGGGA
ACCTAATAGC CAATTGTGCA TCAATCCTTT 8100
  8101 GCAAGTGTTA CACAACAGGA ACGATCATTA ATCAAGACCC TGACAAGATC CTAACATACA TTGCTGCCGA
TCACTGCCCG GTAGTCGAGG TGAACGGCGT 8200
  8201 GACCATCCAA GTCGGGAGCA GGAGGTATCC AGACGCTGTG TACTTGCACA GAATTGACCT CGGTCCTCCC
ATATCATTGG AGAGGTTGGA CGTAGGGACA 8300
  8301 AATCTGGGGA ATGCAATTGC TAAGTTGGAG GATGCCAAGG AATTGTTGGA GTCATCGGAC CAGATATTGA
GGAGTATGAA AGGTTTATCG AGCACTAGCA 8400
  8401 TAGTCTACAT CCTGATTGCA GTGTGTCTTG GAGGGTTGAT AGGGATCCCC GCTTTAATAT GTTGCTGCAG
GGGGCGTTGT AACAAAAAGG GAGAACAAGT 8500
  8501 TGGTATGTCA AGACCAGGCC TAAAGCCTGA TCTTACGGGA ACATCAAAAT CCTATGTAAG GTCGCTCTGA
TCCTCTACAA CTCTTGAAAC ACAAATGTCC 8600
  8601 CACAAGTCTC CTCTTCGTCA TCAAGCAACC ACCGCACCCA GCATCAAGCC CACCTGAAAT TATCTCCGGC
TTCCCTCTGG CCGAACAATA TCGGTAGTTA 8700
  8701 ATTAAAACTT AGGGTGCAAG ATCATCCACA ATGTCACCAC AACGAGACCG GATAAATGCC TTCTACAAAG
ATAACCCCCA TCCCAAGGGA AGTAGGATAG 8800
  8801 TCATTAACAG AGAACATCTT ATGATTGATA GACCTTATGT TTTGCTGGCT GTTCTGTTTG TCATGTTTCT
GAGCTTGATC GGGTTGCTAG CCATTGCAGG 8900
  8901 CATTAGACTT CATCGGGCAG CCATCTACAC CGCAGAGATC CATAAAAGCC TCAGCACCAA TCTAGATGTA
ACTAACTCAA TCGAGCATCA GGTCAAGGAC 9000
  9001 GTGCTGACAC CACTCTTCAA AATCATCGGT GATGAAGTGG GCCTGAGGAC ACCTCAGAGA TTCACTGACC
TAGTGAAATT CATCTCTGAC AAGATTAAAT 9100
  9101 TCCTTAATCC GGATAGGGAG TACGACTTCA GAGATCTCAC TTGGTGTATC AACCCGCCAG AGAGAATCAA
ATTGGATTAT GATCAATACT GTGCAGATGT 9200
  9201 GGCTGCTGAA GAGCTCATGA ATGCATTGGT GAACTCAACT CTACTGGAGA CCAGAACAAC CAATCAGTTC
CTAGCTGTCT CAAAGGGAAA CTGCTCAGGG 9300
  9301 CCCACTACAA TCAGAGGTCA ATTCTCAAAC ATGTCGCTGT CCCTGTTAGA CTTGTATTTA GGTCGAGGTT
ACAATGTGTC ATCTATAGTC ACTATGACAT 9400
  9401 CCCAGGGAAT GTATGGGGGA ACTTACCTAG TGGAAAAGCC TAATCTGAGC AGCAAAAGGT CAGAGTTGTC
ACAACTGAGC ATGTACCGAG TGTTTGAAGT 9500
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AGTAATGATC TCAGCAACTG TATGGTGGCT 9600
  9601 TTGGGGGAGC TCAAACTCGC AGCCCTTTGT CACGGGGAAG ATTCTATCAC AATTCCCTAT CAGGGATCAG
GGAAAGGTGT CAGCTTCCAG CTCGTCAAGC 9700
  9701 TAGGTGTCTG GAAATCCCCA ACCGACATGC AATCCTGGGT CCCCTTATCA ACGGATGATC CAGTGATAGA
CAGGCTTTAC CTCTCATCTC ACAGAGGTGT 9800
  9801 TATCGCTGAC AATCAAGCAA AATGGGCTGT CCCGACAACA CGAACAGATG ACAAGTTGCG AATGGAGACA
TGCTTCCAAC AGGCGTGTAA GGGTAAAATC 9900
  9901 CAAGCACTCT GCGAGAATCC CGAGTGGGCA CCATTGAAGG ATAACAGGAT TCCTTCATAC GGGGTCTTGT
CTGTTGATCT GAGTCTGACA GTTGAGCTTA 10000
 10001 AAATCAAAAT TGCTTCGGGA TTCGGGCCAT TGATCACACA CGGTTCAGGG ATGGACCTAT ACAAATCCAA
CCACAACAAT GTGTATTGGC TGACTATCCC 10100
 10101 GCCAATGAAG AACCTAGCCT TAGGTGTAAT CAACACATTG GAGTGGATAC CGAGATTCAA GGTTAGTCCC
TACCTCTTCA CTGTCCCAAT TAAGGAAGCA 10200
```

Figure 24 (contd..)

10201 GGCGAAGACT GCCATGCCCC AACATACCTA CCTGCGGAGG TGGATGGTGA TGTCAAACTC AGTTCCAATC
TGGTGATTCT ACCTGGTCAA GATCTCCAAT 10300
10301 ATGTTTTGGC AACCTACGAT ACTTCCAGGG TTGAACATGC TGTGGTTTAT TACGTTTACA GCCCAGGCCG
CTCATTTTCT TACTTTTATC CTTTTAGGTT 10400
10401 GCCTATAAAG GGGGTCCCCA TCGAATTACA AGTGGAATGC TTCACATGGG ACCAAAAACT CTGGTGCCGT
CACTTCTGTG TGCTTGCGGA CTCAGAATCT 10500
10501 GGTGGACATA TCACTCACTC TGGGATGGTG GGCATGGGAG TCAGCTGCAC AGTCACCCGG GAAGATGGAA
CCAATCGCAG ATAGGGCTGC TAGTGAACCA 10600
10601 ATCACATGAT GTCACCCAGA CATCAGGCAT ACCCACTAGT GTGAAATAGA CATCAGAATT AAGAAAAACG
TAGGGTCCAA GTGGTTCCCC GTTATGGACT 10700
10701 CGCTATCTGT CAACCAGATC TTATACCCTG AAGTTCACCT AGATAGCCCG ATAGTTACCA ATAAGATAGT
AGCCATCCTG GAGTATGCTC GAGTCCCTCA 10800
10801 CGCTTACAGC CTGGAGGACC CTACACTGTG TCAGAACATC AAGCACCGCC TAAAAAACGG ATTTTCCAAC
CAAATGATTA TAAACAATGT GGAAGTTGGG 10900
10901 AATGTCATCA AGTCCAAGCT TAGGAGTTAT CCGGCCCACT CTCATATTCC ATATCCAAAT TGTAATCAGG
ATTTATTTAA CATAGAAGAC AAAGAGTCAA 11000
11001 CGAGGAAGAT CCGTGAACTC CTCAAAAAGG GGAATTCGCT GTACTCCAAA GTCAGTGATA AGGTTTTCCA
ATGCTTAAGG GACACTAACT CACGGCTTGG 11100
11101 CCTAGGCTCC GAATTGAGGG AGGACATCAA GGAGAAAGTT ATTAACTTGG GAGTTTACAT GCACAGCTCC
CAGTGGTTTG AGCCCTTTCT GTTTTGGTTT 11200
11201 ACAGTCAAGA CTGAGATGAG GTCAGTGATT AAATCACAAA CCCATACTTG CCATAGGAGG AGACACACAC
CTGTATTCTT CACTGGTAGT TCAGTTGAGT 11300
11301 TGCTAATCTC TCGTGACCTT GTTGCTATAA TCAGTAAAGA GTCTCAACAT GTATATTACC TGACATTTGA
ACTGGTTTTG ATGTATTGTG ATGTCATAGA 11400
11401 GGGGAGGTTA ATGACAGAGA CCGCTATGAC TATTGATGCT AGGTATACAG AGCTTCTAGG AAGAGTCAGA
TACATGTGGA AACTGATAGA TGGTTTCTTC 11500
11501 CCTGCACTCG GGAATCCAAC TTATCAAATT GTAGCAATGC TGGAGCCTCT TTCACTTGCT TACCTGCAGC
TGAGGGATAT AACAGTAGAA CTCAGAGGTG 11600
11601 CTTTCCTTAA CCACTGCTTT ACTGAAATAC ATGATGTTCT TGACCAAAAC GGGTTTTCTG ATGAAGGTAC
TTATCATGAG TTAATTGAAG CTCTAGATTA 11700
11701 CATTTTCATA ACTGATGACA TACATCTGAC AGGGGAGATT TTCTCATTTT TCAGAAGTTT CGGCCACCCC
AGACTTGAAG CAGTAACGGC TGCTGAAAAT 11800
11801 GTTAGGAAAT ACATGAATCA GCCTAAAGTC ATTGTGTATG AGACTCTGAT GAAAGGTCAT GCCATATTTT
GTGGAATCAT AATCAACGGC TATCGTGACA 11900
11901 GGCACGGAGG CAGTTGGCCA CCGCTGACCC TCCCCCTGCA TGCTGCAGAC ACAATCCGGA ATGCTCAAGC
TTCAGGTGAA GGGTTAACAC ATGAGCAGTG 12000
12001 CGTTGATAAC TGGAAATCTT TTGCTGGAGT GAAATTTGGC TGCTTTATGC CTCTTAGCCT GGATAGTGAT
CTGACAATGT ACCTAAAGGA CAAGGCACTT 12100
12101 GCTGCTCTCC AAAGGGAATG GGATTCAGTT TACCCGAAAG AGTTCCTGCG TTACGACCCT CCCAAGGGAA
CCGGGTCACG GAGGCTTGTA GATGTTTTCC 12200
12201 TTAATGATTC GAGCTTTGAC CCATATGATG TGATAATGTA TGTTGTAAGT GGAGCTTACC TCCATGACCC
TGAGTTCAAC CTGTCTTACA GCCTGAAAGA 12300
12301 AAAGGAGATC AAGGAAACAG GTAGACTTTT TGCTAAAATG ACTTACAAAA TGAGGGCATG CCAAGTGATT
GCTGAAAATC TAATCTCAAA CGGGATTGGC 12400
12401 AAATATTTTA AGGACAATGG GATGGCCAAG GATGAGCACG ATTTGACTAA GGCACTCCAC ACTCTAGCTG
TCTCAGGAGT CCCCAAAGAT CTCAAAGAAA 12500
12501 GTCACAGGGG GGGGCCAGTC TTAAAAACCT ACTCCCGAAG CCCAGTCCAC ACAAGTACCA GGAACGTGAG
AGCAGCAAAA GGGTTTATAG GGTTCCCTCA 12600
12601 AGTAATTCGG CAGGACCAAG ACACTGATCA TCCGGAGAAT ATGGAAGCTT ACGAGACAGT CAGTGCATTT
ATCACGACTG ATCTCAAGAA GTACTGCCTT 12700
12701 AATTGGAGAT ATGAGACCAT CAGCTTGTTT GCACAGAGGC TAAATGAGAT TTACGGATTG CCCTCATTTT
TCCAGTGGCT GCATAAGAGG CTTGAGACCT 12800
12801 CTGTCCTGTA TGTAAGTGAC CCTCATTGCC CCCCCGACCT TGACGCCCAT ATCCCGTTAT ATAAAGTCCC
CAATGATCAA ATCTTCATTA AGTACCCTAT 12900
12901 GGGAGGTATA GAAGGGTATT GTCAGAAGCT GTGGACCATC AGCACCATTC CCTATCTATA CCTGGCTGCT
TATGAGAGCG GAGTAAGGAT TGCTTCGTTA 13000
13001 GTGCAAGGGG ACAATCAGAC CATAGCCGTA ACAAAAAGGG TACCCAGCAC ATGGCCCTAC AACCTTAAGA
AACGGGAAGC TGCTAGAGTA ACTAGAGATT 13100
13101 ACTTTGTAAT TCTTAGGCAA AGGCTACATG ATATTGGCCA TCACCTCAAG GCAAATGAGA CAATTGTTTC
ATCACATTTT TTTGTCTATT CAAAAGGAAT 13200
13201 ATATTATGAT GGGCTACTTG TGTCCCAATC ACTCAAGAGC ATCGCAAGAT GTGTATTCTG GTCAGAGACT
ATAGTTGATG AAACAAGGGC AGCATGCAGT 13300
13301 AATATTGCTA CAACAATGGC TAAAAGCATC GAGAGAGGTT ATGACCGTTA CCTTGCATAT TCCCTGAACG
TCCTAAAAGT GATACAGCAA ATTCTGATCT 13400
13401 CTCTTGGCTT CACAATCAAT TCAACCATGA CCCGGGATGT AGTCATACCC CTCCTCACAA ACAACGACCT
CTTAATAAGG ATGGCACTGT TGCCCGCTCC 13500
13501 TATTGGGGGG ATGAATTATC TGAATATGAG GAGGCTGTTT GTCAGAAACA TCGGTGATCC AGTAACATCA
TCAATTGCTG ATCTCAAGAG AATGATTCTC 13600
13601 GCCTCACTAA TGCCTGAAGA GACCCTCCAT CAAGTAATGA CACAACAACC GGGGGACTCT TCATTCCTAG

Figure 24 (Contd..)

ACTGGGCTAG CGACCCTTAC TCAGCAAATC 13700
13701 TTGTATGTGT CCAGAGCATC ACTAGACTCC TCAAGAACAT AACTGCAAGG TTTGTCCTGA TCCATAGTCC
AAACCCAATG TTAAAAGGAT TATTCCATGA 13800
13801 TGACAGTAAA GAAGAGGACG AGGGACTGGC GGCATTCCTC ATGGACAGGC ATATTATAGT ACCTAGGGCA
GCTCATGAAA TCCTGGATCA TAGTGTCACA 13900
13901 GGGGCAAGAG AGTCTATTGC AGGCATGCTG GATACCACAA AAGGCTTGAT TCGAGCCAGC ATGAGGAAGG
GGGGGTTAAC CTCTCGAGTG ATAACCAGAT 14000
14001 TGTCCAATTA TGACTATGAA CAATTCAGAG CAGGGATGGT GCTATTGACA GGAAGAAAGA GAAATGTCCT
CATTGACAAA GAGTCATGTT CAGTGCAGCT 14100
14101 GGCGAGAGCT CTAAGAAGCC ATATGTGGGC GAGGCTAGCT CGAGGACGGC CTATTTACGG CCTTGAGGTC
CCTGATGTAC TAGAATCTAT GCGAGGCCAC 14200
14201 CTTATTCGGC GTCATGAGAC ATGTGTCATC TGCGAGTGTG GATCAGTCAA CTACGGATGG TTTTTTGTCC
CCTCGGGTTG CCAACTGGAT GATATTGACA 14300
14301 AGGAAACATC ATCCTTGAGA GTCCCATATA TTGGTTCTAC CACTGATGAG AGAACAGACA TGAAGCTTGC
CTTCGTAAGA GCCCCAAGTC GATCCTTGCG 14400
14401 ATCTGCTGTT AGAATAGCAA CAGTGTACTC ATGGGCTTAC GGTGATGATG ATAGCTCTTG GAACGAAGCC
TGGTTGTTGG CTAGGCAAAG GGCCAATGTG 14500
14501 AGCCTGGAGG AGCTAAGGGT GATCACTCCC ATCTCAACTT CGACTAATTT AGCGCATAGG TTGAGGGATC
GTAGCACTCA AGTGAAATAC TCAGGTACAT 14600
14601 CCCTTGTCCG AGTGGCGAGG TATACCACAA TCTCCAACGA CAATCTCTCA TTTGTCATAT CAGATAAGAA
GGTTGATACT AACTTTATAT ACCAACAAGG 14700
14701 AATGCTCCTA GGGTTGGGTG TTTTAGAAAC ATTGTTTCGA CTCGAGAAAG ATACCGGATC ATCTAACACG
GTATTACATC TTCACGTCGA AACAGATTGT 14800
14801 TGCGTGATCC CGATGATAGA TCATCCCAGG ATACCCAGCT CCCGCAAGCT AGAGCTGAGG GCAGAGCTAT
GTACCAACCC ATTGATATAT GATAATGCAC 14900
14901 CTTTAATTGA CAGAGATGCA ACAAGGCTAT ACACCCAGAG CCATAGGAGG CACCTTGTGG AATTTGTTAC
ATGGTCCACA CCCCAACTAT ATCACATTTT 15000
15001 AGCTAAGTCC ACAGCACTAT CTATGATTGA CCTGGTAACA AAATTTGAGA AGGACCATAT GAATGAAATT
TCAGCTCTCA TAGGGGATGA CGATATCAAT 15100
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TCAATTGGGC ATTTGATGTA CATTATCATA 15200
15201 GACCATCAGG GAAATATCAG ATGGGTGAGC TGTTGTCATC GTTCCTTTCT AGAATGAGCA AAGGAGTGTT
TAAGGTGCTT GTCAATGCTC TAAGCCACCC 15300
15301 AAAGATCTAC AAGAAATTCT GGCATTGTGG TATTATAGAG CCTATCCATG GTCCTTCACT TGATGCTCAA
AACTTGCACA CAACTGTGTG CAACATGGTT 15400
15401 TACACATGCT ATATGACCTA CCTCGACCTG TTGTTGAATG AAGAGTTAGA AGAGTTCACA TTTCTCTTGT
GTGAAAGCGA CGAGGATGTA GTACCGGACA 15500
15501 GATTCGACAA CATCCAGGCA AAACACTTAT GTGTTCTGGC AGATTTGTAC TGTCAACCAG GGACCTGCCC
ACCAATTCGA GGTCTAAGAC CGGTAGAGAA 15600
15601 ATGTGCAGTT CTAACCGACC ATATCAAGGC AGAGGCTATG TTATCTCCAG CAGGATCTTC GTGGAACATA
AATCCAATTA TTGTAGACCA TTACTCATGC 15700
15701 TCTCTGACTT ATCTCCGGCG AGGATCGATC AAACAGATAA GATTGAGAGT TGATCCAGGA TTCATTTTCG
ACGCCCTCGC TGAGGTAAAT GTCAGTCAGC 15800
15801 CAAAGATCGG CAGCAACAAC ATCTCAAATA TGAGCATCAA GGCTTTCAGA CCCCCACACG ATGATGTTGC
AAAATTGCTC AAAGATATCA ACACAAGCAA 15900
15901 GCACAATCTT CCCATTTCAG GGGGCAATCT CGCCAATTAT GAAATCCATG CTTTCCGCAG AATCGGGTTG
AACTCATCTG CTTGCTACAA AGCTGTTGAG 16000
16001 ATATCAACAT TAATTAGGAG ATGCCTTGAG CCAGGGGAGG ACGGCTTGTT CTTGGGTGAG GGATCGGGTT
CTATGTTGAT CACTTATAAG GAGATACTTA 16100
16101 AACTAAACAA GTGCTTCTAT AATAGTGGGG TTTCCGCCAA TTCTAGATCT GGTCAAAGGG AATTAGCACC
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AGCTAGAGGA ATTGGCAGCC ATCTTATCGA 16400
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TCAGGGATTT ATAAGTTATG TAGGGTCTCA 16500
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ACAGATCTCA AGGCTAACCG GCTAATGAAT 16600
16601 CCTGAAAAGA TTAAGCAGCA GATAATTGAA TCATCTGTGA GGACTTCACC TGGACTTATA GGTCACATCC
TATCCATTAA GCAACTAAGC TGCATACAAG 16700
16701 CAATTGTGGG AGACGCAGTT AGTAGAGGTG ATATCAATCC TACTCTGAAA AAACTTACAC CTATAGAGCA
GGTGCTGATC AATTGCGGGT TGGCAATTAA 16800
16801 CGGACCTAAG CTGTGCAAAG AATTGATCCA CCATGATGTT GCCTCAGGGC AAGATGGATT GCTTAATTCT
ATACTCATCC TCTACAGGGA GTTGGCAAGA 16900
16901 TTCAAAGACA ACCAAAGAAG TCAACAAGGG ATGTTCCACG CTTACCCCGT ATTGGTAAGT AGCAGGCAAC
GAGAACTTAT ATCTAGGATC ACCCGCAAAT 17000
17001 TTTGGGGGCA CATTCTTCTT TACTCCGGGA ACAGAAAGTT GATAAATAAG TTTATCCAGA ATCTCAAGTC
CGGCTATCTG ATACTAGACT TACACCAGAA 17100

Figure 24(Contd..)

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 17101 TATCTTCGTT AAGAATCTAT CCAAGTCAGA GAAACAGATT ATTATGACGG   GGGGTTTGAA ACGTGAGTGG
GTTTTTAAGG TAACAGTCAA GGAGACCAAA 17200
 17201 GAATGGTATA AGTTAGTCGG ATACAGTGCC CTGATTAAGG ACTAATTGGT   TGAACTCCGG AACCCTAATC
CTGCCCTAGG TGGTTAGGCA TTATTTGCAA 17300
 17301 TATATTAAAG AAAACTTTGA AAATACGAAG TTTCTATTCC CAGCTTTGTC   TGGTggccgg catggtccca
gcctcctcgc tggcgccggc tgggcaacat 17400
 17401 tccgagggga ccgtcccctc ggtaatggcg aatgggacGC GGCCgatccg   gctgctaaca aagcccgaaa
ggaagctgag ttggctgctg ccaccgctga 17500
 17501 gcaataacta gcataacccc ttggggcctc taaacgggtc ttgaggggtt   ttttgctgaa aggaggaact
atatccggat GCGGCCGCaG GTACCCAGCT 17600
 17601 TTTGTTCCCt ttagtgaggg ttaatttCGA GCTTGGCGTA ATCATGGTCA   TAGCTGTTTC CTGTGTGAAA
TTGTTATCCG CTCACAATTC CACACAACAT 17700
 17701 ACGAGCCGGA AGCATAAAGT GTAAAGCCTG GGGTGCCTAA TGAGTGAGCT   AACTCACATT AATTGCGTTG
CGCTCACTGC CCGCTTTCCA GTCGGGAAAC 17800
 17801 CTGTCGTGCC AGCTGCATTA ATGAATCGGC CAACGCGCGG GGAGAGGCGG   TTTGCGTATT GGGCGCTCTT
CCGCTTCCTC GCTCACTGAC TCGCTGCGCT 17900
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GGATAACGCA GGAAAGAACA TGTGAGCAAA 18000
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GACGAGCATC ACAAAAATCG ACGCTCAAGT 18100
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CTCCTGTTCC GACCCTGCCG CTTACCGGAT 18200
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GGTGTAGGTC GTTCGCTCCA AGCTGGGCTG 18300
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GTAAGACACG ACTTATCGCC ACTGGCAGCA 18400
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ACTACGGCTA CACTAGAAGG ACAGTATTTG 18500
 18501 GTATCTGCGC TCTGCTGAAG CCAGTTACCT TCGGAAAAAG AGTTGGTAGC   TCTTGATCCG GCAAACAAAC
CACCGCTGGT AGCGGTGGTT TTTTTGTTTG 18600
 18601 CAAGCAGCAG ATTACGCGCA GAAAAAAAGG ATCTCAAGAA GATCCTTTGA   TCTTTTCTAC GGGGTCTGAC
GCTCAGTGGA ACGAAAACTC ACGTTAAGGG 18700
 18701 ATTTTGGTCA TGAGATTATC AAAAAGGATC TTCACCTAGA TCCTTTTAAA   TTAAAAATGA AGTTTTAAAT
CAATCTAAAG TATATATGAG TAAACTTGGT 18800
 18801 CTGACAGTTA CCAATGCTTA ATCAGTGAGG CACCTATCTC AGCGATCTGT   CTATTTCGTT CATCCATAGT
TGCCTGACTC CCCGTCGTGT AGATAACTAC 18900
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GATTTATCAG CAATAAACCA GCCAGCCGGA 19000
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CTAGAGTAAG TAGTTCGCCA GTTAATAGTT 19100
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CTCCGGTTCC CAACGATCAA GGCGAGTTAC 19200
 19201 ATGATCCCCC ATGTTGTGCA AAAAAGCGGT TAGCTCCTTC GGTCCTCCGA   TCGTTGTCAG AAGTAAGTTG
GCCGCAGTGT TATCACTCAT GGTTATGGCA 19300
 19301 GCACTGCATA ATTCTCTTAC TGTCATGCCA TCCGTAAGAT GCTTTTCTGT   GACTGGTGAG TACTCAACCA
AGTCATTCTG AGAATAGTGT ATGCGGCGAC 19400
 19401 CGAGTTGCTC TTGCCCGGCG TCAATACGGG ATAATACCGC GCCACATAGC   AGAACTTTAA AAGTGCTCAT
CATTGGAAAA CGTTCTTCGG GGCGAAAACT 19500
 19501 CTCAAGGATC TTACCGCTGT TGAGATCCAG TTCGATGTAA CCCACTCGTG   CACCCAACTG ATCTTCAGCA
TCTTTTACTT TCACCAGCGT TTCTGGGTGA 19600
 19601 GCAAAAACAG GAAGGCAAAA TGCCGCAAAA AAGGGAATAA GGGCGACACG   GAAATGTTGA ATACTCATAC
TCTTCCTTTT TCAATATTAT TGAAGCATTT 19700
 19701 ATCAGGGTTA TTGTCTCATG AGCGGATACA TATTTGAATG TATTTAGAAA   AATAAACAAA TAGGGGTTCC
GCGCACATTT CCCCGAAAAG TGC        19793
           |   10      |   20      |   30      |   40      |   50      |   60      |   70
|   80      |   90      |  100
```

Figure 24

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          |   10      |   20      |   30      |   40      |   50      |   60      |   70
|   80      |   90      |  100
     1 CACCTAAATT GTAAGCGTTA ATATTTTGTT AAAATTCGCG TTAAATTTTT GTTAAATCAG CTCATTTTTT
AACCAATAGG CCGAAATCGG CAAAATCCCT 100
   101 TATAAATCAA AAGAATAGAC CGAGATAGGG TTGAGTGTTG TTCCAGTTTG GAACAAGAGT CCACTATTAA
AGAACGTGGA CTCCAACGTC AAAGGGCGAA 200
   201 AAACCGTCTA TCAGGGCGAT GGCCCACTAC GTGAACCATC ACCCTAATCA AGTTTTTTGG GGTCGAGGTG
CCGTAAAGCA CTAAATCGGA ACCCTAAAGG 300
   301 GAGCCCCCGA TTTAGAGCTT GACGGGGAAA GCCggccatt taggccaTAG GGCGCTGGCA AGTGTAGCGG
TCACGCTGCG CGTAACCACC ACACCCGCCG 400
   401 CGCTTAATGC GCCGCTACAG GGCGCGTCCC ATTCGCCATT CAGGCTGCGC AACTGTTGGG AAGGGCGATC
GGTGCGGGCC TCTTCGCTAT TACGCCAGCT 500
   501 GGCGAAAGGG GGATGTGCTG CAAGGCGATT AAGTTGGGTA ACGCCAGGGT TTTCCCAGTC ACGACGTTGT
AAAACGACGG CCAGTGAATT Gtaatacgac 600
   601 tcactataAC CAAACAAAGT TGGGTAAGGA TAGTTCAATC AATGATCATC TTCTAGTGCA CTTAGGATTC
AAGATCCTAT TATCAGGGAC AAGAGCAGGA 700
   701 TTAGGGATAT CTGAGATGGC CACACTTTTA AGGAGCTTAG CATTGTTCAA AAGAAACAAG GACAAACCAC
CCATTACATC AGGATCCGGT GGAGCCATCA 800
   801 GAGGAATCAA ACACATTATT ATAGTACCAA TCCCTGGAGA TTCCTCAATT ACCACTCGAT CCAGACTTCT
GGACCGGTTG GTCAGGTTAA TTGGAAACCC 900
   901 GGATGTGAGC GGGCCCAAAC TAACAGGGGC ACTAATAGGT ATATTATCCT TATTTGTGGA GTCTCCAGGT
CAATTGATTC AGAGGATCAC CGATGACCCT 1000
  1001 GACGTTAGCA TAAGGCTGTT AGAGGTTGTC CAGAGTGACC AGTCACAATC TGGCCTTACC TTCGCATCAA
GAGGTACCAA CATGGAGGAT GAGGCGGACC 1100
  1101 AATACTTTTC ACATGATGAT CCAATTAGTA GTGATCAATC CAGGTTCGGA TGGTTCGAGA ACAAGGAAAT
CTCAGATATT GAAGTGCAAG ACCCTGAGGG 1200
  1201 ATTCAACATG ATTCTGGGTA CCATCCTAGC CCAAATTTGG GTCTTGCTCG CAAAGGCGGT TACGGCCCCA
GACACGGCAG CTGATTCGGA GCTAAGAAGG 1300
  1301 TGGATAAAGT ACACCCAACA AAGAAGGGTA GTTGGTGAAT TTAGATTGGA GAGAAAATGG TTGGATGTGG
TGAGGAACAG GATTGCCGAG GACCTCTCCT 1400
  1401 TACGCCGATT CATGGTCGCT CTAATCCTGG ATATCAAGAG AACACCCGGA AACAAACCCA GGATTGCTGA
AATGATATGT GACATTGATA CATATATCGT 1500
  1501 AGAGGCAGGA TTAGCCAGTT TTATCCTGAC TATTAAGTTT GGGATAGAAA CTATGTATCC TGCTCTTGGA
CTGCATGAAT TTGCTGGTGA GTTATCCACA 1600
  1601 CTTGAGTCCT TGATGAACCT TTACCAGCAA ATGGGGGAAA CTGCACCCTA CATGGTAATC CTGGAGAACT
CAATTCAGAA CAAGTTCAGT GCAGGATCAT 1700
  1701 ACCCTCTGCT CTGGAGCTAT GCCATGGGAG TAGGAGTGGA ACTTGAAAAC TCCATGGGGG GTTTGAACTT
TGGCCGATCT TACTTTGATC CAGCATATTT 1800
  1801 TAGATTAGGG CAAGAGATGG TAAGGAGGTC AGCTGGAAAG GTCAGTTCCA CATTGGCATC TGAACTCGGT
ATCACTGCCG AGGATGCAAG GCTTGTTTCA 1900
  1901 GAGATTGCAA TGCATACTAC TGAGGACAAG ATCAGTAGAG CGGTTGGACC CAGACAAGCC CAAGTATCAT
TTCTACACGG TGATCAAAGT GAGAATGAGC 2000
  2001 TACCGAGATT GGGGGGCAAG GAAGATAGGA GGGTCAAACA GAGTCGAGGA GAAGCCAGGG AGAGCTACAG
AGAAACCGGG CCCAGCAGAG CAAGTGATGC 2100
  2101 GAGAGCTGCC CATCTTCCAA CCGGCACACC CCTAGACATT GACACTGCAT CGGAGTCCAG CCAAGATCCG
CAGGACAGTC GAAGGTCAGC TGACGCCCTG 2200
  2201 CTTAGGCTGC AAGCCATGGC AGGAATCTCG GAAGAACAAG GCTCAGACAC GGACACCCCT ATAGTGTACA
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  2301 AGGCCGAGGG CCAGAACAAC ATCCGCCTAC CCTCCATCAT TGTTATAAAA AACTTAGGAA CCAGGTCCAC
ACAGCCGCCA GCCCATCAAC CATCCACTCC 2400
  2401 CACGATTGGA GCCAATGGTA GAAGAGCAGG CACGCCATGT CAAAAACGGA CTGGAATGCA TCCGGGCTCT
CAAGGCCGAG CCCATCGGCT CACTGGCCAT 2500
  2501 CGAGGAAGCT ATGGCAGCAT GGTCAGAAAT ATCAGACAAC CCAGGACAGG AGCGAGCCAC CTGCAGGGAA
GAGAAGGCAG GCAGTTCGGG TCTCAGAAAA 2600
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GCGATGACGA CGCTGAAACT TTGGGAATCC 2700
  2701 CCCCAAGAAA TCTCCAGGCA TCAAGCACTG GGTTACAGTG TTATTACGTT TATGATCACA GCGGTGAAGC
GGTTAAGGGA ATCCAAGATG CTGACTCTAT 2800
  2801 CATGGTTCAA TCAGGCCTTG ATGGTGATAG CACCCTCTCA GGAGGAGACA ATGAATCTGA AAACAGCGAT
GTGGATATTG GCGAACCTGA TACCGAGGGA 2900
  2901 TATGCTATCA CTGACCGGGG ATCTGCTCCC ATCTCTATGG GGTTCAGGGC TTCTGATGTT GAAACTGCAG
AAGGAGGGGA GATCCACGAG CTCCTGAGAC 3000
  3001 TCCAATCCAG AGGCAACAAC TTTCCGAAGC TTGGGAAAAC TCTCAATGTT CCTCCGCCCC CGGACCCCGG
TAGGGCCAGC ACTTCCGGGA CACCCATTAA 3100
  3101 AAAGGGCACA GACGCGAGAT TAGCCTCATT TGGAACGGAG ATCGCGTCTT TATTGACAGG TGGTGCAACC
CAATGTGCTC GAAAGTCACC CTCGGAACCA 3200
  3201 TCAGGGCCAG GTGCACCTGC GGGGAATGTC CCCGAGTGTG TGAGCAATGC CGCACTGATA CAGGAGTGGA
CACCCGAATC TGGTACCACA ATCTCCCCGA 3300
  3301 GATCCCAGAA TAATGAAGAA GGGGGAGACT ATTATGATGA TGAGCTGTTC TCTGATGTCC AAGATATTAA
```

Figure 25 (contd..)

```
AACAGCCTTG GCCAAAATAC ACGAGGATAA 3400
  3401 TCAGAAGATA ATCTCCAAGC TAGAATCACT GCTGTTATTG AAGGGAGAAG TTGAGTCAAT TAAGAAGCAG
ATCAACAGGC AAAATATCAG CATATCCACC 3500
  3501 CTGGAAGGAC ACCTCTCAAG CATCATGATC GCCATTCCTG GACTTGGGAA GGATCCCAAC GACCCCACTG
CAGATGTCGA AATCAATCCC GACTTGAAAC 3600
  3601 CCATCATAGG CAGAGATTCA GGCCGAGCAC TGGCCGAAGT TCTCAAGAAA CCCGTTGCCA GCCGACAACT
CCAAGGAATG ACAAATGGAC GGACCAGTTC 3700
  3701 CAGAGGACAG CTGCTGAAGG AATTTCAGCT AAAGCCGATC GGGAAAAAGA TGAGCTCAGC CGTCGGGTTT
GTTCCTGACA CCGGCCCTGC ATCACGCAGT 3800
  3801 GTAATCCGCT CCATTATAAA ATCCAGCCGG CTAGAGGAGG ATCGGAAGCG TTACCTGATG ACTCTCCTTG
ATGATATCAA AGGAGCCAAT GATCTTGCCA 3900
  3901 AGTTCCACCA GATGCTGATG AAGATAATAA TGAAGTAGCT ACAGCTCAAC TTACCTGCCA ACCCCATGCC
AGTCGACCCA actagtACAA CCTAAATCCA 4000
  4001 TCATAAAAAA CTTAGGAGCA AAGTGATTGC CTCCCAAGTT CCACAATGAC AGAGATCTAC GACTTCGACA
AGTCGGCATG GGACATCAAA GGGTCGATCG 4100
  4101 CTCCGATACA ACCCACCACC TACAGTGATG GCAGGCTGGT GCCCCAGGTC AGAGTCATAG ATCCTGGTCT
AGGCGACAGG AAGGATGAAT GCTTTATGTA 4200
  4201 CATGTTTCTG CTGGGGGTTG TTGAGGACAG GGATTCCCTA GGGCCTCCAA TCGGGCGAGC ATTTGGGTCC
CTGCCCTTAG GTGTTGGCAG ATCCACAGCA 4300
  4301 AAGCCCGAAA AACTCCTCAA AGAGGCCACT GAGCTTGACA TAGTTGTTAG ACGTACAGCA GGGCTCAATG
AAAAACTGGT GTTCTACAAC AACACCCCAC 4400
  4401 TAACTCTCCT CACACCTTGG AGAAAGGTCC TAACAACAGG GAGTGTCTTC AACGCAAACC AAGTGTGCAA
TGCGGTTAAT CTGATACCGC TCGATACCCC 4500
  4501 GCAGAGGTTC CGTGTTGTTT ATATGAGCAT CACCCGTCTT TCGGATAACG GGTATTACAC CGTTCCTAGA
AGAATGCTGG AATTCAGATC GGTCAATGCA 4600
  4601 GTGGCCTTCA ACCTGCTGGT GACCCTTAGG ATTGACAAGG CGATAGGCCC TGGGAAGATC ATCGACAATA
CAGAGCAACT TCCTGAGGCA ACATTTATAG 4700
  4701 TCCACATCGG GAACTTCAGG AGAAAGAAGA GTGAAGTCTA CTCTGCCGAT TATTGCAAAA TGAAAATCGA
AAAGATGGGC CTGGTTTTTG CACTTGGTGG 4800
  4801 GATAGGGGGC ACCAGTCTTC ACATTAGAAG CACAGGCAAA ATGAGCAAGA CTCTCAATGC ACAACTCGGG
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  4901 GATATCAATG AAGACCTTAA TCGATTACTC TGGAGGAGCA GATGCAAGAT AGTAAGAATC CAGGCAGTTT
TGCAGCCATC AGTTCCTCAA GAATTCCGCA 5000
  5001 TTTACGACGA CGTGATCATA AATGATGACC AAGGACTATT CAAAGTTCTG TAGACCGTAG TGCCCAGCAA
TGCCCGAAAA CGACCCCCCT CACAATGACA 5100
  5101 GCCAGAAGGC CCGGACAAAA AAGCCCCCTC CGAAAGACTC CACGGACCAA GCGAGAGGCC AGCCAGCAGC
CGACGGCAAG CGCGAACACC AGGCGGCCCC 5200
  5201 AGCACAGAAC AGCCCTGACA CAAGGCCACC ACCAGCCACC CCAATCTGCA TCCTCCTCGT GGGACCCCCG
AGGACCAACC CCCAAGGCTG CCCCCGATCC 5300
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TAAACAAAAC TTAGGGCCAA GGAACATACA 5500
  5501 CACCCAACAG AACCCAGACC CCGGCCCACG GCGCCGCGCC CCCAACCCCC GACAACCAGA GGGAGCCCCC
AACCAATCCC GCCGGCTCCC CCGGTGCCCA 5600
  5601 CAGGCAGGGA CACCAACCCC CGAACAGACC CAGCACCCAA CCATCGACAA TCCAAGACGG GGGGGCCCCC
CCAAAAAAAA GCCCCCAGGG GCCGACAGCC 5700
  5701 AGCACCGCGA GGAAGCCCAC CCACCCCACA CACGACCACG GCAACCAAAC CAGAACCCAG ACCACCCTGG
GCCACCAGCT CCCAGACTCG GCCATCACCC 5800
  5801 CGCAGAAAGG AAAGGCCACA ACCCGCGCAC CCCAGCCCCG ATCCGGCGGG GAGCCACCCA ACCCGAACCA
GCACCCAAGA GCGATCCCCG AAGGACCCCC 5900
  5901 GAACCGCAAA GGACATCAGT ATCCCACAGC CTCTCCAAGT CCCCCGGTCT CCTCCTCTTC TCGAAGGGAC
CAAAAGATCA ATCCACCACA CCCGACGACA 6000
  6001 CTCAACTCCC CACCCCTAAA GGAGACACCG GGAATCCCAG AATCAAGACT CATCCAATGT CCATCATGGG
TCTCAAGGTG AACGTCTCTG CCATATTCAT 6100
  6101 GGCAGTACTG TTAACTCTCC AAACACCCAC CGGTCAAATC CATTGGGGCA ATCTCTCTAA GATAGGGGTG
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  6201 ATGACTCGTT CCAGCCATCA ATCATTAGTC ATAAAATTAA TGCCCAATAT AACTCTCCTC AATAACTGCA
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  6301 TACTGAGAAC AGTTTTGGAA CCAATTAGAG ATGCACTTAA TGCAATGACC CAGAATATAA GACCGGTTCA
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  6401 ATTTGCGGGA GTAGTCCTGG CAGGTGCGGC CCTAGGCGTT GCCACAGCTG CTCAGATAAC GGCCGGCATT
GCACTTCACC AGTCCATGCT GAACTCTCAA 6500
  6501 GCCATCGACA ATCTGAGAGC GAGCCTGGAA ACTACTAATC AGGCAATTGA GGCAATCAGA CAAGCAGGGC
AGGAGATGAT ATTGGCTGTT CAGGGTGTCC 6600
  6601 AAGACTACAT CAATAATGAG CTGATACCGT CTATGAACCA ACTATCTTGT GATTTAATCG GCCAGAAGCT
CGGGCTCAAA TTGCTCAGAT ACTATACAGA 6700
  6701 AATCCTGTCA TTATTTGGCC CCAGTTTACG GGACCCCATA TCTGCGGAGA TATCTATCCA GGCTTTGAGC
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Figure 25(Contd..)

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TATGCGCTTG GAGGAGACAT CAATAAGGTG 6800
  6801 TTAGAAAAGC TCGGATACAG TGGAGGTGAT TTACTGGGCA TCTTAGAGAG CAGAGGAATA AAGGCCCGGA
TAACTCACGT CGACACAGAG TCCTACTTCA 6900
  6901 TTGTCCTCAG TATAGCCTAT CCGACGCTGT CCGAGATTAA GGGGGTGATT GTCCACCGGC TAGAGGGGGT
CTCGTACAAC ATAGGCTCTC AAGAGTGGTA 7000
  7001 TACCACTGTG CCCAAGTATG TTGCAACCCA AGGGTACCTT ATCTCGAATT TTGATGAGTC ATCGTGTACT
TTCATGCCAG AGGGGACTGT GTGCAGCCAA 7100
  7101 AATGCCTTGT ACCCGATGAG TCCTCTGCTC CAAGAATGCC TCCGGGGGTA CACCAAGTCC TGTGCTCGTA
CACTCGTATC CGGGTCTTTT GGGAACCGGT 7200
  7201 TCATTTTATC ACAAGGGAAC CTAATAGCCA ATTGTGCATC AATCCTTTGC AAGTGTTACA CAACAGGAAC
GATCATTAAT CAAGACCCTG ACAAGATCCT 7300
  7301 AACATACATT GCTGCCGATC ACTGCCCGGT AGTCGAGGTG AACGGCGTGA CCATCCAAGT CGGGAGCAGG
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  7401 ATTGACCTCG GTCCTCCCAT ATCATTGGAG AGGTTGGACG TAGGGACAAA TCTGGGGAAT GCAATTGCTA
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  7501 CATCGGACCA GATATTGAGG AGTATGAAAG GTTTATCGAG CACTAGCATA GTCTACATCC TGATTGCAGT
GTGTCTTGGA GGGTTGATAG GGATCCCCGC 7600
  7601 TTTAATATGT TGCTGCAGGG GGCGTTGTAA CAAAAAGGGA GAACAAGTTG GTATGTCAAG ACCAGGCCTA
AAGCCTGATC TTACGGGAAC ATCAAAATCC 7700
  7701 TATGTAAGGT CGCTCTGATC CTCTACAACT CTTGAAACAC AAATGTCCCA CAAGTCTCCT CTTCGTCATC
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  7801 CCTGAAATTA TCTCCGGCTT CCCTCTGGCC GAACAATATC GGTAGTTAAT TAAAACTTAG GGTGCAAGAT
CATCCACAAT GTCACCACAA CGAGACCGGA 7900
  7901 TAAATGCCTT CTACAAAGAT AACCCCCATC CCAAGGGAAG TAGGATAGTC ATTAACAGAG AACATCTTAT
GATTGATAGA CCTTATGTTT TGCTGGCTGT 8000
  8001 TCTGTTTGTC ATGTTTCTGA GCTTGATCGG GTTGCTAGCC ATTGCAGGCA TTAGACTTCA TCGGGCAGCC
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TCATCGGTGA TGAAGTGGGC CTGAGGACAC 8200
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CGACTTCAGA GATCTCACTT GGTGTATCAA 8300
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GCATTGGTGA ACTCAACTCT ACTGGAGACC 8400
  8401 AGAACAACCA ATCAGTTCCT AGCTGTCTCA AAGGGAAACT GCTCAGGGCC CACTACAATC AGAGGTCAAT
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TTACCTAGTG GAAAAGCCTA ATCTGAGCAG 8600
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TGGGCTGTCC CGACAACACG AACAGATGAC 9000
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tgtcactact ttcacctatg gtgttcaatg 10100
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caggaaagaa ctatattttt caaagatgac 10200
```

Figure 25(Contd..)

10201 gggaactaca agacacgtgc tgaagtcaag tttgaaggtg ataccttgt taatagaatc gagttaaaag
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10301 ttggacacaa attggaatac aactataact cacacaatgt atacatcatg gcagacaaac aaaagaatgg
aatcagagtt aacttcaaaa ttagacacaa 10400
10401 cattgaagat ggaagcgttc aactagcaga ccattatcaa caaaatactc caattggcga tggccctgtc
cttttaccag acaaccatta cctgtccaca 10500
10501 caatctgccc tttcgaaaga tcccaacgaa aagagagacc acatggtcct tcttgagttt gtaacagctg
ctgggattac acatggcatg gatgaactat 10600
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ATAGTAGCCA TCCTGGAGTA TGCTCGAGTC 10800
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CCAACCAAAT GATTATAAAC AATGTGGAAG 10900
10901 TTGGGAATGT CATCAAGTCC AAGCTTAGGA GTTATCCGGC CCACTCTCAT ATTCCATATC CAAATTGTAA
TCAGGATTTA TTTAACATAG AAGACAAAGA 11000
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TTCCAATGCT TAAGGGACAC TAACTCACGG 11100
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GCTCCCAGTG GTTTGAGCCC TTTCTGTTTT 11200
11201 GGTTTACAGT CAAGACTGAG ATGAGGTCAG TGATTAAATC ACAAACCCAT ACTTGCCATA GGAGGAGACA
CACACCTGTA TTCTTCACTG GTAGTTCAGT 11300
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TTTGAACTGG TTTTGATGTA TTGTGATGTC 11400
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GGTACTTATC ATGAGTTAAT TGAAGCTCTA 11700
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GACCCTGAGT TCAACCTGTC TTACAGCCTG 12300
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GTTTCATCAC ATTTTTTTGT CTATTCAAAA 13200
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GAACGTCCTA AAAGTGATAC AGCAAATTCT 13400
13401 GATCTCTCTT GGCTTCACAA TCAATTCAAC CATGACCCGG GATGTAGTCA TACCCCTCCT CACAAACAAC
GACCTCTTAA TAAGGATGGC ACTGTTGCCC 13500
13501 GCTCCTATTG GGGGGATGAA TTATCTGAAT ATGAGCAGGC TGTTTGTCAG AAACATCGGT GATCCAGTAA
CATCATCAAT TGCTGATCTC AAGAGAATGA 13600

Figure 25 (Contd..)

13601 TTCTCGCCTC ACTAATGCCT GAAGAGACCC TCCATCAAGT AATGACACAA CAACCGGGGG ACTCTTCATT
CCTAGACTGG GCTAGCGACC CTTACTCAGC 13700
13701 AAATCTTGTA TGTGTCCAGA GCATCACTAG ACTCCTCAAG AACATAACTG CAAGGTTTGT CCTGATCCAT
AGTCCAAACC CAATGTTAAA AGGATTATTC 13800
13801 CATGATGACA GTAAAGAAGA GGACGAGGGA CTGGCGGCAT TCCTCATGGA CAGGCATATT ATAGTACCTA
GGGCAGCTCA TGAAATCCTG GATCATAGTG 13900
13901 TCACAGGGGC AAGAGAGTCT ATTGCAGGCA TGCTGGATAC CACAAAAGGC TTGATTCGAG CCAGCATGAG
GAAGGGGGGG TTAACCTCTC GAGTGATAAC 14000
14001 CAGATTGTCC AATTATGACT ATGAACAATT CAGAGCAGGG ATGGTGCTAT TGACAGGAAG AAAGAGAAAT
GTCCTCATTG ACAAAGAGTC ATGTTCAGTG 14100
14101 CAGCTGGCGA GAGCTCTAAG AAGCCATATG TGGGCGAGGC TAGCTCGAGG ACGGCCTATT TACGGCCTTG
AGGTCCCTGA TGTACTAGAA TCTATGCGAG 14200
14201 GCCACCTTAT TCGGCGTCAT GAGACATGTG TCATCTGCGA GTGTGGATCA GTCAACTACG GATGGTTTTT
TGTCCCCTCG GGTTGCCAAC TGGATGATAT 14300
14301 TGACAAGGAA ACATCATCCT TGAGAGTCCC ATATATTGGT TCTACCACTG ATGAGAGAAC AGACATGAAG
CTTGCCTTCG TAAGAGCCCC AAGTCGATCC 14400
14401 TTGCGATCTG CTGTTAGAAT AGCAACAGTG TACTCATGGG CTTACGGTGA TGATGATAGC TCTTGGAACG
AAGCCTGGTT GTTGGCTAGG CAAAGGGCCA 14500
14501 ATGTGAGCCT GGAGGAGCTA AGGGTGATCA CTCCCATCTC AACTTCGACT AATTTAGCGC ATAGGTTGAG
GGATCGTAGC ACTCAAGTGA AATACTCAGG 14600
14601 TACATCCCTT GTCCGAGTGG CGAGGTATAC CACAATCTCC AACGACAATC TCTCATTTGT CATATCAGAT
AAGAAGGTTG ATACTAACTT TATATACCAA 14700
14701 CAAGGAATGC TCCTAGGGTT GGGTGTTTTA GAAACATTGT TTCGACTCGA GAAAGATACC GGATCATCTA
ACACGGTATT ACATCTTCAC GTCGAAACAG 14800
14801 ATTGTTGCGT GATCCCGATG ATAGATCATC CCAGGATACC CAGCTCCCGC AAGCTAGAGC TGAGGGCAGA
GCTATGTACC AACCCATTGA TATATGATAA 14900
14901 TGCACCTTTA ATTGACAGAG ATGCAACAAG GCTATACACC CAGAGCCATA GGAGGCACCT TGTGGAATTT
GTTACATGGT CCACACCCCA ACTATATCAC 15000
15001 ATTTTAGCTA AGTCCACAGC ACTATCTATG ATTGACCTGG TAACAAAATT TGAGAAGGAC CATATGAATG
AAATTTCAGC TCTCATAGGG GATGACGATA 15100
15101 TCAATAGTTT CATAACTGAG TTTCTGCTCA TAGAGCCAAG ATTATTCACT ATCTACTTGG GCCAGTGTGC
GGCCATCAAT TGGGCATTTG ATGTACATTA 15200
15201 TCATAGACCA TCAGGGAAAT ATCAGATGGG TGAGCTGTTG TCATCGTTCC TTTCTAGAAT GAGCAAAGGA
GTGTTTAAGG TGCTTGTCAA TGCTCTAAGC 15300
15301 CACCCAAAGA TCTACAAGAA ATTCTGGCAT TGTGGTATTA TAGAGCCTAT CCATGGTCCT TCACTTGATG
CTCAAAACTT GCACACAACT GTGTGCAACA 15400
15401 TGGTTTACAC ATGCTATATG ACCTACCTCG ACCTGTTGTT GAATGAAGAG TTAGAAGAGT TCACATTTCT
CTTGTGTGAA AGCGACGAGG ATGTAGTACC 15500
15501 GGACAGATTC GACAACATCC AGGCAAAACA CTTATGTGTT CTGGCAGATT TGTACTGTCA ACCAGGGACC
TGCCCACCAA TTCGAGGTCT AAGACCGGTA 15600
15601 GAGAAATGTG CAGTTCTAAC CGACCATATC AAGGCAGAGG CTATGTTATC TCCAGCAGGA TCTTCGTGGA
ACATAAATCC AATTATTGTA GACCATTACT 15700
15701 CATGCTCTCT GACTTATCTC CGGCGAGGAT CGATCAAACA GATAAGATTG AGAGTTGATC CAGGATTCAT
TTTCGACGCC CTCGCTGAGG TAAATGTCAG 15800
15801 TCAGCCAAAG ATCGGCAGCA ACAACATCTC AAATATGAGC ATCAAGGCTT TCAGACCCCC ACACGATGAT
GTTGCAAAAT TGCTCAAAGA TATCAACACA 15900
15901 AGCAAGCACA ATCTTCCCAT TTCAGGGGGC AATCTCGCCA ATTATGAAAT CCATGCTTTC CGCAGAATCG
GGTTGAACTC ATCTGCTTGC TACAAAGCTG 16000
16001 TTGAGATATC AACATTAATT AGGAGATGCC TTGAGCCAGG GGAGGACGGC TTGTTCTTGG GTGAGGGATC
GGGTTCTATG TTGATCACTT ATAAGGAGAT 16100
16101 ACTTAAACTA AACAAGTGCT TCTATAATAG TGGGGTTTCC GCCAATTCTA GATCTGGTCA AAGGGAATTA
GCACCCTATC CCTCCGAAGT TGGCCTTGTC 16200
16201 GAACACAGAA TGGGAGTAGG TAATATTGTC AAAGTGCTCT TTAACGGGAG GCCCGAAGTC ACGTGGGTAG
GCAGTGTAGA TTGCTTCAAT TTCATAGTTA 16300
16301 GTAATATCCC TACCTCTAGT GTGGGGTTTA TCCATTCAGA TATAGAGACC TTGCCTGACA AAGATACTAT
AGAGAAGCTA GAGGAATTGG CAGCCATCTT 16400
16401 ATCGATGGCT CTGCTCCTGG GCAAAATAGG ATCAATACTG GTGATTAAGC TTATGCCTTT CAGCGGGGAT
TTTGTTCAGG GATTTATAAG TTATGTAGGG 16500
16501 TCTCATTATA GAGAAGTGAA CCTTGTATAC CCTAGATACA GCAACTTCAT ATCTACTGAA TCTTATTTGG
TTATGACAGA TCTCAAGGCT AACCGGCTAA 16600
16601 TGAATCCTGA AAAGATTAAG CAGCAGATAA TTGAATCATC TGTGAGGACT TCACCTGGAC TTATAGGTCA
CATCCTATCC ATTAAGCAAC TAAGCTGCAT 16700
16701 ACAAGCAATT GTGGGAGACG CAGTTAGTAG AGGTGATATC AATCCTACTC TGAAAAAACT TACACCTATA
GAGCAGGTGC TGATCAATTG CGGGTTGGCA 16800
16801 ATTAACGGAC CTAAGCTGTG CAAAGAATTG ATCCACCATG ATGTTGCCTC AGGGCAAGAT GGATTGCTTA
ATTCTATACT CATCCTCTAC AGGGAGTTGG 16900
16901 CAAGATTCAA AGACAACCAA AGAAGTCAAC AAGGGATGTT CCACGCTTAC CCCGTATTGG TAAGTAGCAG
GCAACGAGAA CTTATATCTA GGATCACCCG 17000

Figure 25(Contd..)

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 17001 CAAATTTTGG GGGCACATTC TTCTTTACTC CGGGAACAGA AAGTTGATAA  ATAAGTTTAT CCAGAATCTC
AAGTCCGGCT ATCTGATACT AGACTTACAC 17100
 17101 CAGAATATCT TCGTTAAGAA TCTATCCAAG TCAGAGAAAC AGATTATTAT  GACGGGGGGT TTGAAACGTG
AGTGGGTTTT TAAGGTAACA GTCAAGGAGA 17200
 17201 CCAAAGAATG GTATAAGTTA GTCGGATACA GTGCCCTGAT TAAGGACTAA  TTGGTTGAAC TCCGGAACCC
TAATCCTGCC CTAGGTGGTT AGGCATTATT 17300
 17301 TGCAATATAT TAAAGAAAAC TTTGAAAATA CGAAGTTTCT ATTCCCAGCT  TTGTCTGGTg gccggcatgg
tcccagcctc ctcgctggcg ccggctgggc 17400
 17401 aacattccga ggggaccgtc ccctcggtaa tggcgaatgg gacGCGGCCg  atccggctgc taacaaagcc
cgaaaggaag ctgagttggc tgctgccacc 17500
 17501 gctgagcaat aactagcata acccctggg gcctctaaac gggtcttgag  gggttttttg ctgaaaggag
gaactatatc cggatGCGGC CGCaGGTACC 17600
 17601 CAGCTTTTGT TCCCtttagt gagggttaat tTCGAGCTTG GCGTAATCAT  GGTCATAGCT GTTTCCTGTG
TGAAATTGTT ATCCGCTCAC AATTCCACAC 17700
 17701 AACATACGAG CCGGAAGCAT AAAGTGTAAA GCCTGGGGTG CCTAATGAGT  GAGCTAACTC ACATTAATTG
CGTTGCGCTC ACTGCCCGCT TTCCAGTCGG 17800
 17801 GAAACCTGTC GTGCCAGCTG CATTAATGAA TCGGCCAACG CGCGGGGAGA  GGCGGTTTGC GTATTGGGCG
CTCTTCCGCT TCCTCGCTCA CTGACTCGCT 17900
 17901 GCGCTCGGTC GTTCGGCTGC GGCGAGCGGT ATCAGCTCAC TCAAAGGCGG  TAATACGGTT ATCCACAGAA
TCAGGGGATA ACGCAGGAAA GAACATGTGA 18000
 18001 GCAAAAGGCC AGCAAAAGGC CAGGAACCGT AAAAAGGCCG CGTTGCTGGC  GTTTTTCCAT AGGCTCCGCC
CCCCTGACGA GCATCACAAA AATCGACGCT 18100
 18101 CAAGTCAGAG GTGGCGAAAC CCGACAGGAC TATAAAGATA CCAGGCGTTT  CCCCCTGGAA GCTCCCTCGT
GCGCTCTCCT GTTCCGACCC TGCCGCTTAC 18200
 18201 CGGATACCTG TCCGCCTTTC TCCCTTCGGG AAGCGTGGCG CTTTCTCATA  GCTCACGCTG TAGGTATCTC
AGTTCGGTGT AGGTCGTTCG CTCCAAGCTG 18300
 18301 GGCTGTGTGC ACGAACCCCC CGTTCAGCCC GACCGCTGCG CCTTATCCGG  TAACTATCGT CTTGAGTCCA
ACCCGGTAAG ACACGACTTA TCGCCACTGG 18400
 18401 CAGCAGCCAC TGGTAACAGG ATTAGCAGAG CGAGGTATGT AGGCGGTGCT  ACAGAGTTCT TGAAGTGGTG
GCCTAACTAC GGCTACACTA GAAGGACAGT 18500
 18501 ATTTGGTATC TGCGCTCTGC TGAAGCCAGT TACCTTCGGA AAAAGAGTTG  GTAGCTCTTG ATCCGGCAAA
CAAACCACCG CTGGTAGCGG TGGTTTTTTT 18600
 18601 GTTTGCAAGC AGCAGATTAC GCGCAGAAAA AAAGGATCTC AAGAAGATCC  TTTGATCTTT TCTACGGGGT
CTGACGCTCA GTGGAACGAA AACTCACGTT 18700
 18701 AAGGGATTTT GGTCATGAGA TTATCAAAAA GGATCTTCAC CTAGATCCTT  TTAAATTAAA AATGAAGTTT
TAAATCAATC TAAAGTATAT ATGAGTAAAC 18800
 18801 TTGGTCTGAC AGTTACCAAT GCTTAATCAG TGAGGCACCT ATCTCAGCGA  TCTGTCTATT TCGTTCATCC
ATAGTTGCCT GACTCCCCGT CGTGTAGATA 18900
 18901 ACTACGATAC GGGAGGGCTT ACCATCTGGC CCCAGTGCTG CAATGATACC  GCGAGACCCA CGCTCACCGG
CTCCAGATTT ATCAGCAATA AACCAGCCAG 19000
 19001 CCGGAAGGGC CGAGCGCAGA AGTGGTCCTG CAACTTTATC CGCCTCCATC  CAGTCTATTA ATTGTTGCCG
GGAAGCTAGA GTAAGTAGTT CGCCAGTTAA 19100
 19101 TAGTTTGCGC AACGTTGTTG CCATTGCTAC AGGCATCGTG GTGTCACGCT  CGTCGTTTGG TATGGCTTCA
TTCAGCTCCG GTTCCCAACG ATCAAGGCGA 19200
 19201 GTTACATGAT CCCCCATGTT GTGCAAAAAA GCGGTTAGCT CCTTCGGTCC  TCCGATCGTT GTCAGAAGTA
AGTTGGCCGC AGTGTTATCA CTCATGGTTA 19300
 19301 TGGCAGCACT GCATAATTCT CTTACTGTCA TGCCATCCGT AAGATGCTTT  TCTGTGACTG GTGAGTACTC
AACCAAGTCA TTCTGAGAAT AGTGTATGCG 19400
 19401 GCGACCGAGT TGCTCTTGCC CGGCGTCAAT ACGGGATAAT ACCGCGCCAC  ATAGCAGAAC TTTAAAAGTG
CTCATCATTG GAAAACGTTC TTCGGGGCGA 19500
 19501 AAACTCTCAA GGATCTTACC GCTGTTGAGA TCCAGTTCGA TGTAACCCAC  TCGTGCACCC AACTGATCTT
CAGCATCTTT TACTTTCACC AGCGTTTCTG 19600
 19601 GGTGAGCAAA AACAGGAAGG CAAAATGCCG CAAAAAAGGG AATAAGGGCG  ACACGGAAAT GTTGAATACT
CATACTCTTC CTTTTTCAAT ATTATTGAAG 19700
 19701 CATTTATCAG GGTTATTGTC TCATGAGCGG ATACATATTT GAATGTATTT  AGAAAAATAA ACAAATAGGG
GTTCCGCGCA CATTTCCCCG AAAAGTGC   19798
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Figure 25

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          |   10      |   20      |   30      |   40      |   50      |   60      |
70      |   80      |   90      |  100
     1  ATGaccgtcg  cgcggccgag  cgtgcccgcg  gcgctgcccc  tcctcgggga     gctgccccgg
ctgctgctgc tggtgctgtt gtgcctgccg gccgtgtggG 100
   101  GATCCGTGAC  CCACGAATCC  TATCAGGAGC  TGGTTAAGAA  ACTGGAAGCT     TTAGAGGACG
CCGTATTGAC AGGTTACTCC CTATTCCAGA AAGAAAAGAT 200
   201  GGTTTTAAAC  GAAGAAGAAA  TTACCACAAA  GGGAGCATCC  GCCCAGTCTG     GAGCATCTGC
TCAGAGCGGA GCATCTGCTC AGAGTGGAGC AAGCGCCCAA 300
   301  AGTGGAGCGT  CTGCCCAGTC  AGGCGCCTCA  GCTCAATCTG  GAACCTCTGG     GCCGAGTGGT
CCTAGCGGTA CTTCTCCAAG TAGCCGGTCT AATACACTCC 400
   401  CACGTTCCAA  CACCTCCAGT  GGAGCCTCCC  CACCCGCCGA  CGCATCCGAC     TCAGACGCTA
AGAGTTATGC AGACCTGAAG CACCGCGTGA GGAACTACCT 500
   501  TTTCACTATC  AAAGAGTTGA  AGTACCCTGA  ATTGTTCGAT  TTGACCAACC     ATATGCTGAC
ACTCTGTGAC AACATACATG GTTTCAAGTA TCTGATAGAT 600
   601  GGGTATGAAG  AAATTAACGA  GCTGCTCTAT  AAACTCAACT  TTTACTTCGA     CCTGCTGCGT
GCCAAGCTGA ACGATGTCTG TGCAAACGAT TACTGCCAGA 700
   701  TCCCATTCAA  CCTAAAGATA  CGTGCGAACG  AGCTGGATGT  TCTGAAGAAA     CTCGTGTTCG
GGTATCGGAA ACCCTTGGAC AACATTAAGG ACAATGTGGG 800
   801  GAAGATGGAG  GATTACATTA  AGAAAAATAA  AACAACAATC  GCTAACATAA     ATGAGCTTAT
CGAGGGGAGC AAAAAGACCA TCGACCAGAA CAAGAATGCC 900
   901  GACAATGAAG  AGGGAAAAAA  GAAACTATAC  CAAGCCCAGT  ATGATTTGAG     CATCTACAAT
     AAGCAACTAG AGGAAGCTCA CAACCTCATC AGCGTACTGG 1000
  1001  AAAAGAGAAT  TGACACCCTG  AAAAAGAATG  AAAACATTAA  GAAACTCCTG     GACAAGATTA
ACGAAATTAA AAACCCaCCt CCaGCGAATA GCGGAAATAC 1100
  1101  CCCGAATACC  CTGCTGGATA  AGAACAAAAA  GATTGAAGAG  CACGAAGAGA     AAATCAAGGA
AATCGCCAAG ACTATTAAGT TCAATATAGA TTCTCTGTTC 1200
  1201  ACAGACCCtC  TGGAGCTGGA  ATACTACCTG  CGCGAGAAGA  ATAAGAAGGT     CGACGTGACC
CCAAAGAGCC AAGACCCAAC AAAGTCCGTG CAGATCCCCA 1300
  1301  AAGTGCCCTA  CCCAAACGGC  ATCGTGTATC  CCCTGCCTCT  TACCGACATC     CACAACTCTC
TGGCAGCCGA TAACGACAAA AACAGCTATG GAGACCTGAT 1400
  1401  GAACCCCCAC  ACTAAGGAAA  AGATAAACGA  GAAGATCATT  ACCGATAATA     AGGAGCGGAA
GATTTTTATC AACAACATCA AGAAGAAAAT CGACCTGGAA 1500
  1501  GAGAAAAATA  TCAATCACAC  CAAAGAGCAA  AACAAGAAAT  TACTGGAGGA     CTATGAGAAG
'AGCAAAAAGG ATTATGAGGA ACTGTTAGAG AAGTTCTATG 1600
  1601  AAATGAAATT  CAACAACAAT  TTCGATAAGG  ATGTGGTCGA  TAAAATTTTC     AGCGCCCGGT
ACACCTACAA CGTGGAGAAG CAGCGGTACA ACAATAAGTT 1700
  1701  CAGCAGCTCC  AATAACTCGG  TCTACAATGT  GCAGAAGCTG  AAGAAAGCTC     TGAGCTATCT
GGAAGACTAC TCGCTGAGGA AAGGGATTTC TGAGAAGGAT 1800
  1801  TTCAACCACT  ACTACACCCT  CAAAACCGGC  CTGGAAGCTG  ACATCAAGAA     ACTCACTGAA
GAGATCAAAA GTTCTGAGAA TAAGATACTG GAGAAGAACT 1900
  1901  TCAAGGGACT  AACGCACTCT  GCAAACGGCT  CCCTGGAAGT  CTCTGACATC     GTGAAACTGC
AAGTCCAAAA GGTGCTGCTC ATCAAAAAAA TCGAGGATCT 2000
  2001  GCGAAAGATC  GAGCTGTTTC  TTAAGAACGC  CCAACTGAAA  GACTCAATCC     ACGTGCCTAA
CATTTACAAA CCGCAGAACA AACCAGAACC ATACTATCTG 2100
  2101  ATCGTGCTGA  AGAAGGAGGT  GGATAAGCTG  AAGGAATTCA  TCCCAAAAGT     GAAAGATATG
TTAAAGAAAG AGCAAGCCGT GCTGAGCAGC ATAACGCAGC 2200
  2201  CTCTGGTGGC  CGCAAGCGAG  ACAACCGAAG  ATGGCGGGCA  CAGCACCCAC     ACCCTGTCTC
AGTCTGGCGA AACAGAGGTG ACAGAAGAGA CAGAAGAGAC 2300
  2301  CGAAGAAACA  GTGGGGCACA  CCACTACTGT  GACCATCACT  TTGCCCCCTA     CGCAGCCATC
TCCCCCAAAA GAGGTCAAAG TCGTGGAAAA CTCCATTGAA 2400
  2401  CAGAAGTCCA  ACGACAACTC  ACAGGCTCTG  ACGAAGACCG  TCTATCTGAA     GAAACTGGAC
GAGTTCCTGA CCAAAAGCTA CATCTGCCAT AAATACATCC 2500
  2501  TCGTGTCTAA  CAGCAGCATG  GATCAGAAGC  TGTTGGAGGT  GTACAACCTA     ACGCCCGAAG
AAGAGAACGA GTTAAAATCC TGTGATCCCT TAGACCTACT 2600
  2601  GTTTAACATT  CAGAACAACA  TCCCCGCTAT  GTACAGCTTA  TATGATTCCA     TGAATAACGA
CCTCCAGCAC CTGTTCTTCG AGCTGTACCA GAAAGAGATG 2700
  2701  ATCTACTATC  TGCATAAGCT  GAAAGAGGAG  AATCACATCA  AAAAGTTGCT     GGAAGAGCAG
AAACAGATAA CTGGGACGTC CAGCACATCG TCACCTGGCA 2800
  2801  ACACGACAGT  AAATACCGCC  CAGTCTGCTA  CACACTCCAA  CTCCCAGAAC     CAGCAGAGCA
ACGCTTCTAG CACCAACACC CAGAATGGGG TAGCAGTTAG 2900
  2901  TAGCGGCCCT  GCTGTGGTGG  AGGAATCGCA  TGACCCCCTC  ACTGTATTAT     CTATTTCAAA
CGACCTAAAA GGGATTGTGT CCCTCCTCAA TTTAGGTAAT 3000
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Figure 26 (Contd..)

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  3001  AAGACCAAGG  TCCCTAACCC  CTTGACTATC  AGCACTACGG  AAATGGAGAA  GTTTTATGAA
AACATCCTGA AGAACAACGA CACCTATTTT AACGACGACA 3100
  3101  TAAAGCAGTT  CGTGAAGAGT  AACAGTAAAG  TGATTACCGG  GCTGACAGAA  ACCCAGAAAA
ATGCTTTAAA TGATGAGATC AAGAAACTGA AAGACACACT 3200
  3201  CCAGCTCTCC  TTCGATCTGT  ACAACAAGTA  CAAACTAAAG  CTGGACAGAT  TATTCAATAA
GAAGAAGGAG CTTGGGCAAG ATAAGATGCA GATTAAGAAG 3300
  3301  CTAACTTTAC  TGAAGGAGCA  GCTCGAGAGC  AAGCTCAACT  CCCTGAATAA  TCCACATAAT
GTGCTCCAGA ACTTTTCCGT ATTCTTCAAT AAGAAGAAAG 3400
  3401  AAGCAGAGAT  TGCCGAGACG  GAAAATACCC  TCGAAAACAC  TAAGATATTA  CTGAAACACT
ATAAAGGGCT GGTGAAGTAT TACAACGGAG AGTCTAGCCC 3500
  3501  ATTGAAGACT  CTTTCAGAAG  TGTCAATTCA  AACCGAGGAT  AACTACGCAA  ACCTAGAAAA
GTTCAGAGTG CTGAGCAAAA TCGACGGCAA ACTCAATGAT 3600
  3601  AACCTACACC  TCGGAAAAAA  AAAGCTGAGC  TTCCTGTCCA  GTGGACTTCA  TCATTTAATT
ACCGAATTGA AAGAAGTTAT CAAAAACAAA AACTACACTG 3700
  3701  GGAACAGCCC  ATCTGAAAAT  AATAAAAAGG  TCAACGAGGC  CCTCAAGTCT  TATGAAAATT
TCCTTCCAGA AGCAAAAGTG ACAACCGTCG TGACCCCCCC 3800
  3801  CCAGCCCGAT  GTCACCCCCA  GCCCTCTAAG  CGTGAGAGTG  TCTGGATCAA  GTGGCTCCAC
AAAAGAAGAA ACCCAGATCC CCACATCAGG ATCTCTACTG 3900
  3901  ACCGAGTTGC  AGCAGGTCGT  CCAACTCCAG  AATTATGACG  AGGAAGACGA  CAGCCTCGTG
GTTTTGCCAA TCTTCGGCGA ATCAGAAGAC AACGACGAGT 4000
  4001  ACCTAGACCA  AGTGGTCACC  GGGGAAGCGA  TTAGTGTCAC  TATGGACAAT  ATCCTCAGCG
GCTTCGAGAA CGAGTATGAC GTGATCTACC TCAAACCACT 4100
  4101  AGCCGGAGTT  TACAGAAGTC  TCAAGAAGCA  GATCGAAAAG  AACATCTTCA  CCTTTAATCT
AAACCTAAAC GACATCTTGA ATTCCCGGCT GAAAAAGCGG 4200
  4201  AAATACTTCC  TCGACGTACT  GGAGTCGGAT  TTGATGCAGT  TTAAGCACAT  CTCCAGCAAC
GAATACATTA TCGAGGACTC GTTCAAACTG TTAAACTCCG 4300
  4301  AGCAGAAGAA  CACCCTGCTG  AAGTCCTACA  AATATATCAA  AGAGTCAGTC  GAGAACGATA
TTAAATTCGC CCAAGAAGGC ATAAGCTACT ACGAAAAGGT 4400
  4401  CCTCGCCAAA  TACAAGGACG  ATCTGGAGTC  TATCAAAAAG  GTCATCAAAG  AAGAGAAAGA
GAAATTTCCC AGTTCTCCCC CTACAACGCC GCCCTCTCCA 4500
  4501  GCCAAGACTG  ATGAACAGAA  AAAAGAGTCT  AAGTTCCTCC  CTTTCCTCAC  TAATATCGAG
ACTCTCTACA ATAACCTAGT GAACAAGATT GACGACTACC 4600
  4601  TGATCAACCT  TAAAGCCAAG  ATAAACGACT  GCAATGTCGA  GAAGGATGAG  GCTCATGTTA
AGATCACCAA ACTGTCCGAT CTGAAAGCCA TCGACGACAA 4700
  4701  GATCGACTTA  TTTAAAAACC  CATACGATTT  CGAGGCTATC  AAAAAGCTGA  TCAATGATGA
CACCAAGAAA GATATGCTCG GCAAGCTGCT GAGCACGGGT 4800
  4801  CTGGTGCAGA  ACTTCCCTAA  CACCATCATA  TCAAAGCTCA  TAGAGGGCAA  GTTCCAAGAC
ATGCTGAATA TTTCACAGCA TCAGTGCGTC AAGAAGCAGT 4900
  4901  GCCCCGAAAA  TTCTGGATGC  TTCCGGCACC  TGGATGAGCG  AGAAGAGTGC  AAGTGCCTGC
TTAACTATAA ACAGGAGGGC GACAAATGTG TGGAGAACCC 5000
  5001  AAATCCGACG  TGCAACGAGA  ACAACGGTGG  CTGCGATGCC  GACGCGACTT  GTACAGAGGA
AGACTCGGGG AGTTCTCGGA AAAAAATCAC GTGCGAGTGC 5100
  5101  ACCAAACCCG  ACAGTTATCC  TCTGTTCGAT  GGGATATTCT  GCTCCTCCAG  CaacgttACT
ACTTCCGGCA CTACCCGTCT TCTATCTGGT CACACGTGTT 5200
  5201  TCACGTTGAC  AGGTTTGCTT  GGGACGCTAG  TAACCATGGG  CTTGCTGACT  TAA
5253
          |  10     |  20     |  30     |  40     |  50     |  60     |
70     |  80     |  90     |  100
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Figure 26

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     |    10      |    20      |    30      |    40      |    50      |    60      |    70
|    80      |    90      |   100
      1  ATGaccgtcg cgcggccgag cgtgcccgcg gcgctgcccc tcctcgggga gctgccccgg
ctgctgctgc tggtgctgtt gtgcctgccg gccgtgtggg 100
    101  gatcCGTGAC CCACGAATCC TATCAGGAGC TGGTTAAGAA ACTGGAAGCT TTAGAGGACG
CCGTATTGAC AGGTTACTCC CTATTCCAGA AAGAAAAGAT 200
    201  GGTTTTAAAC GAAGAAGAAA TTACCACAAA GGGAGCATCC GCCCAGTCTG GAGCATCTGC
TCAGAGCGGA GCATCTGCTC AGAGTGGAGC AAGCGCCCAA 300
    301  AGTGGAGCGT CTGCCCAGTC AGGCGCCTCA GCTCAATCTG GAACCTCTGG GCCGAGTGGT
CCTAGCGGTA CTTCTCCAAG TAGCCGGTCT AATACACTCC 400
    401  CACGTTCCAA CACCTCCAGT GGAGCCTCCC CACCCGCCGA CGCATCCGAC TCAGACGCTA
AGAGTTATGC AGACCTGAAG CACCGCGTGA GGAACTACCT 500
    501  TTTCACTATC AAAGAGTTGA AGTACCCTGA ATTGTTCGAT TTGACCAACC ATATGCTGAC
ACTCTGTGAC AACATACATG GTTTCAAGTA TCTGATAGAT 600
    601  GGGTATGAAG AAATTAACGA GCTGCTCTAT AAACTCAACT TTTACTTCGA CCTGCTGCGT
GCCAAGCTGA ACGATGTCTG TGCAAACGAT TACTGCCAGA 700
    701  TCCCATTCAA CCTAAAGATA CGTGCGAACG AGCTGGATGT TCTGAAGAAA CTCGTGTTCG
GGTATCGGAA ACCCTTGGAC AACATTAAGG ACAATGTGGG 800
    801  GAAGATGGAG GATTACATTA AGAAAAATAA AACAACAATC GCTAACATAA ATGAGCTTAT
CGAGGGGAGC AAAAAGACCA TCGACCAGAA CAAGAATGCC 900
    901  GACAATGAAG AGGGAAAAAA GAAACTATAC CAAGCCCAGT ATGATTTGAG CATCTACAAT
AAGCAACTAG AGGAAGCTCA CAACCTCATC AGCGTACTGG 1000
   1001  AAAAGAGAAT TGACACCCTG AAAAAGAATG AAAACATTAA GAAACTCCTG GACAAGATTA
ACGAAATTAA AAACCCaCCt CCaGCGAATA GCGGAAATAC 1100
   1101  CCCGAATACC CTGCTGGATA AGAACAAAAA GATTGAAGAG CACGAAGAGA AAATCAAGGA
AATCGCCAAG ACTATTAAGT TCAATATAGA TTCTCTGTTC 1200
   1201  ACAGACCCtC TGGAGCTGGA ATACTACCTG CGCGAGAAGA ATAAGAAGGT CGACGTGACC
CCAAAGAGCC AAGACCCAAC AAAGTCCGTG CAGATCCCCA 1300
   1301  AAGTGCCCTA CCCAAACGGC ATCGTGTATC CCCTGCCTCT TACCGACATC CACAACTCTC
TGGCAGCCGA TAACGACAAA AACAGCTATG GAGACCTGAT 1400
   1401  GAACCCCCAC ACTAAGGAAA AGATAAACGA GAAGATCATT ACCGATAATA AGGAGCGGAA
GATTTTTATC AACAACATCA AGAAGAAAAT CGACCTGGAA 1500
   1501  GAGAAAAATA TCAATCACAC CAAAGAGCAA AACAAGAAAT TACTGGAGGA CTATGAGAAG
AGCAAAAAGG ATTATGAGGA ACTGTTAGAG AAGTTCTATG 1600
   1601  AAATGAAATT CAACAACAAT TTCGATAAGG ATGTGGTCGA TAAAATTTTC AGCGCCCGGT
ACACCTACAA CGTGGAGAAG CAGCGGTACA ACAATAAGTT 1700
   1701  CAGCAGCTCC AATAACTCGG TCTACAATGT GCAGAAGCTG AAGAAAGCTC TGAGCTATCT
GGAAGACTAC TCGCTGAGGA AAGGGATTTC TGAGAAGGAT 1800
   1801  TTCAACCACT ACTACACCCT CAAAACCGGC CTGGAAGCTG ACATCAAGAA ACTCACTGAA
GAGATCAAAA GTTCTGAGAA TAAGATACTG GAGAAGAACT 1900
   1901  TCAAGGGACT AACGCACTCT GCAAACGGCT CCCTGGAAGT CTCTGACATC GTGAAACTGC
AAGTCCAAAA GGTGCTGCTC ATCAAAAAAA TCGAGGATCT 2000
   2001  GCGAAAGATC GAGCTGTTTC TTAAGAACGC CCAACTGAAA GACTCAATCC ACGTGCCTAA
CATTTACAAA CCGCAGAACA AACCAGAACC ATACTATCTG 2100
   2101  ATCGTGCTGA AGAAGGAGGT GGATAAGCTG AAGGAATTCA TCCCAAAAGT GAAAGATATG
TTAAAGAAAG AGCAAGCCGT GCTGAGCAGC ATAACGCAGC 2200
   2201  CTCTGGTGGC CGCAAGCGAG ACAACCGAAG ATGGCGGGCA CAGCACCCAC ACCCTGTCTC
AGTCTGGCGA AACAGAGGTG ACAGAAGAGA CAGAAGAGAC 2300
   2301  CGAAGAAACA GTGGGGCACA CCACTACTGT GACCATCACT TTGCCCCCTA CGCAGCCATC
TCCCCCAAAA GAGGTCAAAG TCGTGGAAAA CTCCATTGAA 2400
   2401  CAGAAGTCCA ACGACAACTC ACAGGCTCTG ACGAAGACCG TCTATCTGAA GAAACTGGAC
GAGTTCCTGA CCAAAAGCTA CATCTGCCAT AAATACATCC 2500
   2501  TCGTGTCTAA CAGCAGCATG GATCAGAAGC TGTTGGAGGT GTACAACCTA ACGCCCGAAG
AAGAGAACGA GTTAAAATCC TGTGATCCCT TAGACCTACT 2600
   2601  GTTTAACATT CAGAACAACA TCCCCGCTAT GTACAGCTTA TATGATTCCA TGAATAACGA
CCTCCAGCAC CTGTTCTTCG AGCTGTACCA GAAAGAGATG 2700
   2701  ATCTACTATC TGCATAAGCT GAAAGAGGAG AATCACATCA AAAAGTTGCT GGAAGAGCAG
AAACAGATAA CTGGGACGTC CAGCACATCG TCACCTGGCA 2800
   2801  ACACGACAGT AAATACCGCC CAGTCTGCTA CACACTCCAA CTCCCAGAAC CAGCAGAGCA
ACGCTTCTAG CACCAACACC CAGAATGGGG TAGCAGTTAG 2900
   2901  TAGCGGCCCT GCTGTGGTGG AGGAATCGCA TGACCCCCTC ACTGTATTAT CTATTTCAAA
CGACCTAAAA GGGATTGTGT CCCTCCTCAA TTTAGGTAAT 3000
```

Figure 27 (Contd..)

```
   3001  AAGACCAAGG  TCCCTAACCC  CTTGACTATC  AGCACTACGG  AAATGGAGAA  GTTTTATGAA
AACATCCTGA AGAACAACGA CACCTATTTT AACGACGACA 3100
   3101  TAAAGCAGTT  CGTGAAGAGT  AACAGTAAAG  TGATTACCGG  GCTGACAGAA  ACCCAGAAAA
ATGCTTTAAA TGATGAGATC AAGAAACTGA AAGACACACT 3200
   3201  CCAGCTCTCC  TTCGATCTGT  ACAACAAGTA  CAAACTAAAG  CTGGACAGAT  TATTCAATAA
GAAGAAGGAG CTTGGGCAAG ATAAGATGCA GATTAAGAAG 3300
   3301  CTAACTTTAC  TGAAGGAGCA  GCTCGAGAGC  AAGCTCAACT  CCCTGAATAA  TCCACATAAT
GTGCTCCAGA ACTTTTCCGT ATTCTTCAAT AAGAAGAAAG 3400
   3401  AAGCAGAGAT  TGCCGAGACG  GAAAATACCC  TCGAAAACAC  TAAGATATTA  CTGAAACACT
ATAAAGGGCT GGTGAAGTAT TACAACGGAG AGTCTAGCCC 3500
   3501  ATTGAAGACT  CTTTCAGAAG  TGTCAATTCA  AACCGAGGAT  AACTACGCAA  ACCTAGAAAA
GTTCAGAGTG CTGAGCAAAA TCGACGGCAA ACTCAATGAT 3600
   3601  AACCTACACC  TCGGAAAAAA  AAAGCTGAGC  TTCCTGTCCA  GTGGACTTCA  TCATTTAATT
ACCGAATTGA AAGAAGTTAT CAAAAACAAA AACTACACTG 3700
   3701  GGAACAGCCC  ATCTGAAAAT  AATAAAAAGG  TCAACGAGGC  CCTCAAGTCT  TATGAAAATT
TCCTTCCAGA AGCAAAAGTG ACAACCGTCG TGACCCCCCC 3800
   3801  CCAGCCCGAT  GTCACCCCCA  GCCCTCTAAG  CGTGAGAGTG  TCTGGATCAA  GTGGCTCCAC
AAAAGAAGAA ACCCAGATCC CCACATCAGG ATCTCTACTG 3900
   3901  ACCGAGTTGC  AGCAGGTCGT  CCAACTCCAG  AATTATGACG  AGGAAGACGA  CAGCCTCGTG
GTTTTGCCAA TCTTCGGCGA ATCAGAAGAC AACGACGAGT 4000
   4001  ACCTAGACCA  AGTGGTCACC  GGGGAAGCGA  TTAGTGTCAC  TATGGACAAT  ATCCTCAGCG
GCTTCGAGAA CGAGTATGAC GTGATCTACC TCAAACCACT 4100
   4101  AGCCGGAGTT  TACAGAAGTC  TCAAGAAGCA  GATCGAAAAG  AACATCTTCA  CCTTTAATCT
AAACCTAAAC GACATCTTGA ATTCCCGGCT GAAAAAGCGG 4200
   4201  AAATACTTCC  TCGACGTACT  GGAGTCGGAT  TTGATGCAGT  TTAAGCACAT  CTCCAGCAAC
GAATACATTA TCGAGGACTC GTTCAAACTG TTAAACTCCG 4300
   4301  AGCAGAAGAA  CACCCTGCTG  AAGTCCTACA  AATATATCAA  AGAGTCAGTC  GAGAACGATA
TTAAATTCGC CCAAGAAGGC ATAAGCTACT ACGAAAAGGT 4400
   4401  CCTCGCCAAA  TACAAGGACG  ATCTGGAGTC  TATCAAAAAG  GTCATCAAAG  AAGAGAAAGA
GAAATTTCCC AGTTCTCCCC CTACAACGCC GCCCTCTCCA 4500
   4501  GCCAAGACTG  ATGAACAGAA  AAAAGAGTCT  AAGTTCCTCC  CTTTCCTCAC  TAATATCGAG
ACTCTCTACA ATAACCTAGT GAACAAGATT GACGACTACC 4600
   4601  TGATCAACCT  TAAAGCCAAG  ATAAACGACT  GCAATGTCGA  GAAGGATGAG  GCTCATGTTA
AGATCACCAA ACTGTCCGAT CTGAAAGCCA TCGACGACAA 4700
   4701  GATCGACTTA  TTTAAAAACC  CATACGATTT  CGAGGCTATC  AAAAAGCTGA  TCAATGATGA
CACCAAGAAA GATATGCTCG GCAAGCTGCT GAGCACGGGT 4800
   4801  CTGGTGCAGA  ACTTCCCTAA  CACCATCATA  TCAAAGCTCA  TAGAGGGCAA  GTTCCAAGAC
ATGCTGAATA TTTCACAGCA TCAGTGCGTC AAGAAGCAGT 4900
   4901  GCCCCGAAAA  TTCTGGATGC  TTCCGGCACC  TGGATGAGCG  AGAAGAGTGC  AAGTGCCTGC
TTAACTATAA ACAGGAGGGC GACAAATGTG TGGAGAACCC 5000
   5001  AAATCCGACG  TGCAACGAGA  ACAACGGTGG  CTGCGATGCC  GACGCGACTT  GTACAGAGGA
AGACTCGGGG AGTTCTCGGA AAAAAATCAC GTGCGAGTGC 5100
   5101  ACCAAACCCG  ACAGTTATCC  TCTGTTCGAT  GGGATATTCT  GCTCCTCCAG  CAACGTTTAG
5160
            |    10      |    20      |    30      |    40      |    50      |    60      |
70      |    80      |    90      |   100
```

Figure 27

```
   |   10      |   20      |   30      |   40      |   50      |   60      |   70
|   80      |   90      |  100
     1 ATGaccgtcg cgcggccgag cgtgcccgcg gcgctgcccc tcctcgggga gctgccccgg
ctgctgctgc tggtgctgtt gtgcctgccg gccgtgtggG 100
   101 GATCCGTGAC CCACGAATCC TATCAGGAGC TGGTTAAGAA ACTGGAAGCT TTAGAGGACG
CCGTATTGAC AGGTTACTCC CTATTCCAGA AAGAAAAGAT 200
   201 GGTTTTAAAC GAAGAAGAAA TTACCACAAA GGGAGCATCC GCCCAGTCTG GAGCATCTGC
TCAGAGCGGA GCATCTGCTC AGAGTGGAGC AAGCGCCCAA 300
   301 AGTGGAGCGT CTGCCCAGTC AGGCGCCTCA GCTCAATCTG GAACCTCTGG GCCGAGTGGT
CCTAGCGGTA CTTCTCCAAG TAGCCGGTCT AATACACTCC 400
   401 CACGTTCCAA CACCTCCAGT GGAGCCTCCC CACCCGCCGA CGCATCCGAC TCAGACGCTA
AGAGTTATGC AGACCTGAAG CACCGCGTGA GGAACTACCT 500
   501 TTTCACTATC AAAGAGTTGA AGTACCCTGA ATTGTTCGAT TTGACCAACC ATATGCTGAC
ACTCTGTGAC AACATACATG GTTTCAAGTA TCTGATAGAT 600
   601 GGGTATGAAG AAATTAACGA GCTGCTCTAT AAACTCAACT TTTACTTCGA CCTGCTGCGT
GCCAAGCTGA ACGATGTCTG TGCAAACGAT TACTGCCAGA 700
   701 TCCCATTCAA CCTAAAGATA CGTGCGAACG AGCTGGATGT TCTGAAGAAA CTCGTGTTCG
GGTATCGGAA ACCCTTGGAC AACATTAAGG ACAATGTGGG 800
   801 GAAGATGGAG GATTACATTA AGAAAAATAA AACAACAATC GCTAACATAA ATGAGCTTAT
CGAGGGGAGC AAAAAGACCA TCGACCAGAA CAAGAATGCC 900
   901 GACAATGAAG AGGGAAAAAA GAAACTATAC CAAGCCCAGT ATGATTTGAG CATCTACAAT
AAGCAACTAG AGGAAGCTCA CAACCTCATC AGCGTACTGG 1000
  1001 AAAAGAGAAT TGACACCCTG AAAAAGAATG AAAACATTAA GAAACTCCTG GACAAGATTA
ACGAAATTAA AAACCCaCCt CCaGCGAATA GCGGAAATAC 1100
  1101 CCCGAATACC CTGCTGGATA AGAACAAAAA GATTGAAGAG CACGAAGAGA AAATCAAGGA
AATCGCCAAG ACTATTAAGT TCAATATAGA TTCTCTGTTC 1200
  1201 ACAGACCCtC TGGAGCTGGA ATACTACCTG CGCGAGAAGA ATAAGAAGGT CGACGTGACC
CCAAAGAGCC AAGACCCAAC AAAGTCCGTG CAGATCCCCA 1300
  1301 AAGTGCCCTA CCCAAACGGC ATCGTGTATC CCCTGCCTCT TACCGACATC CACAACTCTC
TGGCAGCCGA TAACGACAAA AACAGCTATG GAGACCTGAT 1400
  1401 GAACCCCCAC ACTAAGGAAA AGATAAACGA GAAGATCATT ACCGATAATA AGGAGCGGAA
GATTTTTATC AACAACATCA AGAAGAAAAT CGACCTGGAA 1500
  1501 GAGAAAAATA TCAATCACAC CAAAGAGCAA AACAAGAAAT TACTGGAGGA CTATGAGAAG
AGCAAAAAGG ATTATGAGGA ACTGTTAGAG AAGTTCTATG 1600
  1601 AAATGAAATT CAACAACAAT TTCGATAAGG ATGTGGTCGA TAAAATTTTC AGCGCCCGGT
ACACCTACAA CGTGGAGAAG CAGCGGTACA ACAATAAGTT 1700
  1701 CAGCAGCTCC AATAACTCGG TCTACAATGT GCAGAAGCTG AAGAAAGCTC TGAGCTATCT
GGAAGACTAC TCGCTGAGGA AAGGGATTTC TGAGAAGGAT 1800
  1801 TTCAACCACT ACTACACCCT CAAAACCGGC CTGGAAGCTG ACATCAAGAA ACTCACTGAA
GAGATCAAAA GTTCTGAGAA TAAGATACTG GAGAAGAACT 1900
  1901 TCAAGGGACT AACGCACTCT GCAAACGGCT CCCTGGAAGT CTCTGACATC GTGAAACTGC
AAGTCCAAAA GGTGCTGCTC ATCAAAAAAA TCGAGGATCT 2000
  2001 GCGAAAGATC GAGCTGTTTC TTAAGAACGC CCAACTGAAA GACTCAATCC ACGTGCCTAA
CATTTACAAA CCGCAGAACA AACCAGAACC ATACTATCTG 2100
  2101 ATCGTGCTGA AGAAGGAGGT GGATAAGCTG AAGGAATTCA TCCCAAAAGT GAAAGATATG
TTAAAGAAAG AGCAAGCCGT GCTGAGCAGC ATAACGCAGC 2200
  2201 CTCTGGTGGC CGCAAGCGAG ACAACCGAAG ATGGCGGGCA CAGCACCCAC ACCCTGTCTC
AGTCTGGCGA AACAGAGGTG ACAGAAGAGA CAGAAGAGAC 2300
  2301 CGAAGAAACA GTGGGGCACA CCACTACTGT GACCATCACT TTGCCCCCTA CGCAGCCATC
TCCCCCAAAA GAGGTCAAAG TCGTGGAAAA CTCCATTGAA 2400
  2401 CAGAAGTCCA ACGACAACTC ACAGGCTCTG ACGAAGACCG TCTATCTGAA GAAACTGGAC
GAGTTCCTGA CCAAAAGCTA CATCTGCCAT AAATACATCC 2500
  2501 TCGTGTCTAA CAGCAGCATG GATCAGAAGC TGTTGGAGGT GTACAACCTA ACGCCCGAAG
AAGAGAACGA GTTAAAATCC TGTGATCCCT TAGACCTACT 2600
  2601 GTTTAACATT CAGAACAACA TCCCCGCTAT GTACAGCTTA TATGATTCCA TGAATAACGA
CCTCCAGCAC CTGTTCTTCG AGCTGTACCA GAAAGAGATG 2700
  2701 ATCTACTATC TGCATAAGCT GAAAGAGGAG AATCACATCA AAAAGTTGCT GGAAGAGCAG
AAACAGATAA CTGGGACGTC CAGCACATCG TCACCTGGCA 2800
  2801 ACACGACAGT AAATACCGCC CAGTCTGCTA CACACTCCAA CTCCCAGAAC CAGCAGAGCA
ACGCTTCTAG CACCAACACC CAGAATGGGG TAGCAGTTAG 2900
  2901 TAGCGGCCCT GCTGTGGTGG AGGAATCGCA TGACCCCCTC ACTGTATTAT CTATTTCAAA
CGACCTAAAA GGGATTGTGT CCCTCCTCAA TTTAGGTAAT 3000
```

Figure 28 (Contd..)

```
  3001  AAGACCAAGG  TCCCTAACCC  CTTGACTATC  AGCACTACGG  AAATGGAGAA     GTTTTATGAA
AACATCCTGA AGAACAACGA CACCTATTTT AACGACGACA 3100
  3101  TAAAGCAGTT  CGTGAAGAGT  AACAGTAAAG  TGATTACCGG  GCTGACAGAA     ACCCAGAAAA
ATGCTTTAAA TGATGAGATC AAGAAACTGA AAGACACACT 3200
  3201  CCAGCTCTCC  TTCGATCTGT  ACAACAAGTA  CAAACTAAAG  CTGGACAGAT     TATTCAATAA
GAAGAAGGAG CTTGGGCAAG ATAAGATGCA GATTAAGAAG 3300
  3301  CTAACTTTAC  TGAAGGAGCA  GCTCGAGAGC  AAGCTCAACT  CCCTGAATAA     TCCACATAAT
GTGCTCCAGA ACTTTTCCGT ATTCTTCAAT AAGAAGAAAG 3400
  3401  AAGCAGAGAT  TGCCGAGACG  GAAAATACCC  TCGAAAACAC  TAAGATATTA     CTGAAACACT
ATAAAGGGCT GGTGAAGTAT TACAACGGAG AGTCTAGCCC 3500
  3501  ATTGAAGACT  CTTTCAGAAG  TGTCAATTCA  AACCGAGGAT  AACTACGCAA     ACCTAGAAAA
GTTCAGAGTG CTGAGCAAAA TCGACGGCAA ACTCAATGAT 3600
  3601  AACCTACACC  TCGGAAAAAA  AAAGCTGAGC  TTCCTGTCCA  GTGGACTTCA     TCATTTAATT
ACCGAATTGA AAGAAGTTAT CAAAAACAAA AACTACACTG 3700
  3701  GGAACAGCCC  ATCTGAAAAT  AATAAAAAGG  TCAACGAGGC  CCTCAAGTCT     TATGAAAATT
TCCTTCCAGA AGCAAAAGTG ACAACCGTCG TGACCCCCCC 3800
  3801  CCAGCCCGAT  GTCACCCCCA  GCCCTCTAAG  CGTGAGAGTG  TCTGGATCAA     GTGGCTCCAC
AAAAGAAGAA ACCCAGATCC CCACATCAGG ATCTCTACTG 3900
  3901  ACCGAGTTGC  AGCAGGTCGT  CCAACTCCAG  AATTATGACG  AGGAAGACGA     CAGCCTCGTG
GTTTTGCCAA TCTTCGGCGA ATCAGAAGAC AACGACGAGT 4000
  4001  ACCTAGACCA  AGTGgtcacC  aacgttACTA  CTTCCGGCAC  TACCCGTCTT     CTATCTGGTC
ACACGTGTTT CACGTTGACA GGTTTGCTTG GGACGCTAGT 4100
  4101                    AACCATGGGC                  TTGCTGACTT                  AA
4122
           |   10      |   20      |   30      |   40      |   50      |   60      |
70      |   80      |   90      |  100
```

Figure 28

```
|  10      |  20      |  30      |  40      |  50      |  60      |  70      |
                       80      |  90      | 100
     1 ATGaccgtcg cgcggccgag cgtgcccgcg gcgctgcccc tcctcgggga gctgccccgg
ctgctgctgc tggtgctgtt gtgcctgccg gccgtgtggG 100
   101 GATCCGTGAC CCACGAATCC TATCAGGAGC TGGTTAAGAA ACTGGAAGCT TTAGAGGACG
CCGTATTGAC AGGTTACTCC CTATTCCAGA AAGAAAAGAT 200
   201 GGTTTTAAAC GAAGAAGAAA TTACCACAAA GGGAGCATCC GCCCAGTCTG GAGCATCTGC
TCAGAGCGGA GCATCTGCTC AGAGTGGAGC AAGCGCCCAA 300
   301 AGTGGAGCGT CTGCCCAGTC AGGCGCCTCA GCTCAATCTG GAACCTCTGG GCCGAGTGGT
CCTAGCGGTA CTTCTCCAAG TAGCCGGTCT AATACACTCC 400
   401 CACGTTCCAA CACCTCCAGT GGAGCCTCCC CACCCGCCGA CGCATCCGAC TCAGACGCTA
AGAGTTATGC AGACCTGAAG CACCGCGTGA GGAACTACCT 500
   501 TTTCACTATC AAAGAGTTGA AGTACCCTGA ATTGTTCGAT TTGACCAACC ATATGCTGAC
ACTCTGTGAC AACATACATG GTTTCAAGTA TCTGATAGAT 600
   601 GGGTATGAAG AAATTAACGA GCTGCTCTAT AAACTCAACT TTTACTTCGA CCTGCTGCGT
GCCAAGCTGA ACGATGTCTG TGCAAACGAT TACTGCCAGA 700
   701 TCCCATTCAA CCTAAAGATA CGTGCGAACG AGCTGGATGT TCTGAAGAAA CTCGTGTTCG
GGTATCGGAA ACCCTTGGAC AACATTAAGG ACAATGTGGG 800
   801 GAAGATGGAG GATTACATTA AGAAAAATAA AACAACAATC GCTAACATAA ATGAGCTTAT
CGAGGGGAGC AAAAAGACCA TCGACCAGAA CAAGAATGCC 900
   901 GACAATGAAG AGGGAAAAAA GAAACTATAC CAAGCCCAGT ATGATTTGAG CATCTACAAT
AAGCAACTAG AGGAAGCTCA CAACCTCATC AGCGTACTGG 1000
  1001 AAAAGAGAAT TGACACCCTG AAAAAGAATG AAAACATTAA GAAACTCCTG GACAAGATTA
ACGAAATTAA AAACCCaCCt CCaGCGAATA GCGGAAATAC 1100
  1101 CCCGAATACC CTGCTGGATA AGAACAAAAA GATTGAAGAG CACGAAGAGA AAATCAAGGA
AATCGCCAAG ACTATTAAGT TCAATATAGA TTCTCTGTTC 1200
  1201 ACAGACCCtC TGGAGCTGGA ATACTACCTG CGCGAGAAGA ATAAGAAGGT CGACGTGACC
CCAAAGAGCC AAGACCCAAC AAAGTCCGTG CAGATCCCCA 1300
  1301 AAGTGCCCTA CCCAAACGGC ATCGTGTATC CCCTGCCTCT TACCGACATC CACAACTCTC
TGGCAGCCGA TAACGACAAA AACAGCTATG GAGACCTGAT 1400
  1401 GAACCCCCAC ACTAAGGAAA AGATAAACGA GAAGATCATT ACCGATAATA AGGAGCGGAA
GATTTTTATC AACAACATCA AGAAGAAAAT CGACCTGGAA 1500
  1501 GAGAAAAATA TCAATCACAC CAAAGAGCAA AACAAGAAAT TACTGGAGGA CTATGAGAAG
AGCAAAAAGG ATTATGAGGA ACTGTTAGAG AAGTTCTATG 1600
  1601 AAATGAAATT CAACAACAAT TTCGATAAGG ATGTGGTCGA TAAAATTTTC AGCGCCCGGT
ACACCTACAA CGTGGAGAAG CAGCGGTACA ACAATAAGTT 1700
  1701 CAGCAGCTCC AATAACTCGG TCTACAATGT GCAGAAGCTG AAGAAAGCTC TGAGCTATCT
GGAAGACTAC TCGCTGAGGA AAGGGATTTC TGAGAAGGAT 1800
  1801 TTCAACCACT ACTACACCCT CAAAACCGGC CTGGAAGCTG ACATCAAGAA ACTCACTGAA
GAGATCAAAA GTTCTGAGAA TAAGATACTG GAGAAGAACT 1900
  1901 TCAAGGGACT AACGCACTCT GCAAACGGCT CCCTGGAAGT CTCTGACATC GTGAAACTGC
AAGTCCAAAA GGTGCTGCTC ATCAAAAAAA TCGAGGATCT 2000
  2001 GCGAAAGATC GAGCTGTTTC TTAAGAACGC CCAACTGAAA GACTCAATCC ACGTGCCTAA
CATTTACAAA CCGCAGAACA AACCAGAACC ATACTATCTG 2100
  2101 ATCGTGCTGA AGAAGGAGGT GGATAAGCTG AAGGAATTCA TCCCAAAAGT GAAAGATATG
TTAAAGAAAG AGCAAGCCGT GCTGAGCAGC ATAACGCAGC 2200
  2201 CTCTGGTGGC CGCAAGCGAG ACAACCGAAG ATGGCGGGCA CAGCACCCAC ACCCTGTCTC
AGTCTGGCGA AACAGAGGTG ACAGAAGAGA CAGAAGAGAC 2300
  2301 CGAAGAAACA GTGGGGCACA CCACTACTGT GACCATCACT TTGCCCCCTA CGCAGCCATC
TCCCCCAAAA GAGGTCAAAG TCGTGGAAAA CTCCATTGAA 2400
  2401 CAGAAGTCCA ACGACAACTC ACAGGCTCTG ACGAAGACCG TCTATCTGAA GAAACTGGAC
GAGTTCCTGA CCAAAAGCTA CATCTGCCAT AAATACATCC 2500
  2501 TCGTGTCTAA CAGCAGCATG GATCAGAAGC TGTTGGAGGT GTACAACCTA ACGCCCGAAG
AAGAGAACGA GTTAAAATCC TGTGATCCCT TAGACCTACT 2600
  2601 GTTTAACATT CAGAACAACA TCCCCGCTAT GTACAGCTTA TATGATTCCA TGAATAACGA
CCTCCAGCAC CTGTTCTTCG AGCTGTACCA GAAAGAGATG 2700
  2701 ATCTACTATC TGCATAAGCT GAAAGAGGAG AATCACATCA AAAAGTTGCT GGAAGAGCAG
AAACAGATAA CTGGGACGTC CAGCACATCG TCACCTGGCA 2800
  2801 ACACGACAGT AAATACCGCC CAGTCTGCTA CACACTCCAA CTCCCAGAAC CAGCAGAGCA
ACGCTTCTAG CACCAACACC CAGAATGGGG TAGCAGTTAG 2900
  2901 TAGCGGCCCT GCTGTGGTGG AGGAATCGCA TGACCCCCTC ACTGTATTAT CTATTTCAAA
CGACCTAAAA GGGATTGTGT CCCTCCTCAA TTTAGGTAAT 3000
```

Figure 29 (Contd..)

```
  3001  AAGACCAAGG  TCCCTAACCC  CTTGACTATC  AGCACTACGG  AAATGGAGAA     GTTTTATGAA
AACATCCTGA AGAACAACGA CACCTATTTT AACGACGACA 3100
  3101  TAAAGCAGTT  CGTGAAGAGT  AACAGTAAAG  TGATTACCGG  GCTGACAGAA     ACCCAGAAAA
ATGCTTTAAA TGATGAGATC AAGAAACTGA AAGACACACT 3200
  3201  CCAGCTCTCC  TTCGATCTGT  ACAACAAGTA  CAAACTAAAG  CTGGACAGAT     TATTCAATAA
GAAGAAGGAG CTTGGGCAAG ATAAGATGCA GATTAAGAAG 3300
  3301  CTAACTTTAC  TGAAGGAGCA  GCTCGAGAGC  AAGCTCAACT  CCCTGAATAA     TCCACATAAT
GTGCTCCAGA ACTTTTCCGT ATTCTTCAAT AAGAAGAAAG 3400
  3401  AAGCAGAGAT  TGCCGAGACG  GAAAATACCC  TCGAAAACAC  TAAGATATTA     CTGAAACACT
ATAAAGGGCT GGTGAAGTAT TACAACGGAG AGTCTAGCCC 3500
  3501  ATTGAAGACT  CTTTCAGAAG  TGTCAATTCA  AACCGAGGAT  AACTACGCAA     ACCTAGAAAA
GTTCAGAGTG CTGAGCAAAA TCGACGGCAA ACTCAATGAT 3600
  3601  AACCTACACC  TCGGAAAAAA  AAAGCTGAGC  TTCCTGTCCA  GTGGACTTCA     TCATTTAATT
ACCGAATTGA AAGAAGTTAT CAAAAACAAA AACTACACTG 3700
  3701  GGAACAGCCC  ATCTGAAAAT  AATAAAAAGG  TCAACGAGGC  CCTCAAGTCT     TATGAAAATT
TCCTTCCAGA AGCAAAAGTG ACAACCGTCG TGACCCCCCC 3800
  3801  CCAGCCCGAT  GTCACCCCCA  GCCCTCTAAG  CGTGAGAGTG  TCTGGATCAA     GTGGCTCCAC
AAAAGAAGAA ACCCAGATCC CCACATCAGG ATCTCTACTG 3900
  3901  ACCGAGTTGC  AGCAGGTCGT  CCAACTCCAG  AATTATGACG  AGGAAGACGA     CAGCCTCGTG
GTTTTGCCAA TCTTCGGCGA ATCAGAAGAC AACGACGAGT 4000
  4001                ACCTAGACCA                AGTGGTCACC                GGGGAATAA
4029
          |   10      |   20      |   30      |   40      |   50      |   60      |
70      |   80      |   90      |  100
```

Figure 29

```
    |   10      |   20      |   30      |   40      |   50      |   60      |   70
|   80      |   90      |  100
     1  ATGaccgtcg cgcggccgag cgtgcccgcg  gcgctgcccc  tcctcgggga    gctgccccgg
ctgctgctgc tggtgctgtt gtgcctgccg gccgtgtggG 100
   101  GATCCGTGGT  CACCGGGGAA  GCGATTAGTG  TCACTATGGA  CAATATCCTC    AGCGGCTTCG
AGAACGAGTA TGACGTGATC TACCTCAAAC CACTAGCCGG 200
   201  AGTTTACAGA  AGTCTCAAGA  AGCAGATCGA  AAAGAACATC  TTCACCTTTA    ATCTAAACCT
AAACGACATC TTGAATTCCC GGCTGAAAAA GCGGAAATAC 300
   301  TTCCTCGACG  TACTGGAGTC  GGATTTGATG  CAGTTTAAGC  ACATCTCCAG    CAACGAATAC
ATTATCGAGG ACTCGTTCAA ACTGTTAAAC TCCGAGCAGA 400
   401  AGAACACCCT  GCTGAAGTCC  TACAAATATA  TCAAAGAGTC  AGTCGAGAAC    GATATTAAAT
TCGCCCAAGA AGGCATAAGC TACTACGAAA AGGTCCTCGC 500
   501  CAAATACAAG  GACGATCTGG  AGTCTATCAA  AAAGGTCATC  AAAGAAGAGA    AAGAGAAATT
TCCCAGTTCT CCCCCTACAA CGCCGCCCTC TCCAGCCAAG 600
   601  ACTGATGAAC  AGAAAAAAGA  GTCTAAGTTC  CTCCCTTTCC  TCACTAATAT    CGAGACTCTC
TACAATAACC TAGTGAACAA GATTGACGAC TACCTGATCA 700
   701  ACCTTAAAGC  CAAGATAAAC  GACTGCAATG  TCGAGAAGGA  TGAGGCTCAT    GTTAAGATCA
CCAAACTGTC CGATCTGAAA GCCATCGACG ACAAGATCGA 800
   801  CTTATTTAAA  AACCCATACG  ATTTCGAGGC  TATCAAAAAG  CTGATCAATG    ATGACACCAA
GAAAGATATG CTCGGCAAGC TGCTGAGCAC GGGTCTGGTG 900
   901  CAGAACTTCC  CTAACACCAT  CATATCAAAG  CTCATAGAGG  GCAAGTTCCA    AGACATGCTG
AATATTTCAC AGCATCAGTG CGTCAAGAAG CAGTGCCCCG 1000
  1001  AAAATTCTGG  ATGCTTCCGG  CACCTGGATG  AGCGAGAAGA  GTGCAAGTGC    CTGCTTAACT
ATAAACAGGA GGGCGACAAA TGTGTGGAGA ACCCAAATCC 1100
  1101  GACGTGCAAC  GAGAACAACG  GTGGCTGCGA  TGCCGACGCG  ACTTGTACAG    AGGAAGACTC
GGGGAGTTCT CGGAAAAAAA TCACGTGCGA GTGCACCAAA 1200
  1201  CCCGACAGTT  ATCCTCTGTT  CGATGGGATA  TTCTGCTCCT  CCAGCaacgt    tACTACTTCC
GGCACTACCC GTCTTCTATC TGGTCACACG TGTTTCACGT 1300
  1301      TGACAGGTTT      GCTTGGGACG      CTAGTAACCA      TGGGCTTGCT      GACTTAA
1347
          |   10      |   20      |   30      |   40      |   50      |   60      |
70    |   80      |   90      |  100
```

Figure 30

```
   |    10       |    20       |    30       |    40       |    50       |    60       |    70
|    80       |    90       |   100
      1  ATGaccgtcg  cgcggccgag  cgtgcccgcg  gcgctgcccc  tcctcgggga     gctgccccgg
ctgctgctgc tggtgctgtt gtgcctgccg gccgtgtggg 100
    101  gatcCGTGGT  CACCGGGGAA  GCGATTAGTG  TCACTATGGA  CAATATCCTC     AGCGGCTTCG
AGAACGAGTA TGACGTGATC TACCTCAAAC CACTAGCCGG 200
    201  AGTTTACAGA  AGTCTCAAGA  AGCAGATCGA  AAAGAACATC  TTCACCTTTA     ATCTAAACCT
AAACGACATC TTGAATTCCC GGCTGAAAAA GCGGAAATAC 300
    301  TTCCTCGACG  TACTGGAGTC  GGATTTGATG  CAGTTTAAGC  ACATCTCCAG     CAACGAATAC
ATTATCGAGG ACTCGTTCAA ACTGTTAAAC TCCGAGCAGA 400
    401  AGAACACCCT  GCTGAAGTCC  TACAAATATA  TCAAAGAGTC  AGTCGAGAAC     GATATTAAAT
TCGCCCAAGA AGGCATAAGC TACTACGAAA AGGTCCTCGC 500
    501  CAAATACAAG  GACGATCTGG  AGTCTATCAA  AAAGGTCATC  AAAGAAGAGA     AAGAGAAATT
TCCCAGTTCT CCCCCTACAA CGCCGCCCTC TCCAGCCAAG 600
    601  ACTGATGAAC  AGAAAAAAGA  GTCTAAGTTC  CTCCCTTTCC  TCACTAATAT     CGAGACTCTC
TACAATAACC TAGTGAACAA GATTGACGAC TACCTGATCA 700
    701  ACCTTAAAGC  CAAGATAAAC  GACTGCAATG  TCGAGAAGGA  TGAGGCTCAT     GTTAAGATCA
CCAAACTGTC CGATCTGAAA GCCATCGACG ACAAGATCGA 800
    801  CTTATTTAAA  AACCCATACG  ATTTCGAGGC  TATCAAAAAG  CTGATCAATG     ATGACACCAA
GAAAGATATG CTCGGCAAGC TGCTGAGCAC GGGTCTGGTG 900
    901  CAGAACTTCC  CTAACACCAT  CATATCAAAG  CTCATAGAGG  GCAAGTTCCA     AGACATGCTG
AATATTTCAC AGCATCAGTG CGTCAAGAAG CAGTGCCCCG 1000
   1001  AAAATTCTGG  ATGCTTCCGG  CACCTGGATG  AGCGAGAAGA  GTGCAAGTGC     CTGCTTAACT
ATAAACAGGA GGGCGACAAA TGTGTGGAGA ACCCAAATCC 1100
   1101  GACGTGCAAC  GAGAACAACG  GTGGCTGCGA  TGCCGACGCG  ACTTGTACAG     AGGAAGACTC
GGGGAGTTCT CGGAAAAAAA TCACGTGCGA GTGCACCAAA 1200
   1201  CCCGACAGTT  ATCCTCTGTT  CGATGGGATA  TTCTGCTCCT  CCAGCAACGT     TTAG
1254
             |    10       |    20       |    30       |    40       |    50       |    60       |
70       |    80       |    90       |   100
```

Figure 31

```
        |  10      |  20      |  30      |  40      |  50      |  60      |  70
                          |  80      |  90      |  100
    1 ATGaccgtcg cgcggccgag cgtgcccgcg gcgctgcccc tcctcgggga gctgccccgg
ctgctgctgc tggtgctgtt gtgcctgccg gccgtgtggG 100
  101 GATCCGTGAC CCACGAATCC TATCAGGAGC TGGTTAAGAA ACTGGAAGCT TTGGAAGATG
CCGTCCTTAC CGGATACAGC CTGTTCCAGA AGGAGAAGAT 200
  201 GGTGCTGAAT GAAGGGACGA GTGGCACGGC CGTTACAACC AGCACACCCG GTTCTAAAGG
GTCTGTGGCT AGCGGTGGCT CCGGTGGGTC TGTGGCCTCT 300
  301 GGGGGTTCCG TCGCCTCCGG CGGCAGCGTG GCATCAGGTG GCTCAGTGGC AAGCGGCGGT
TCCGGGAACA GTCGAAGAAC CAATCCATCT GACAACTCTA 400
  401 GCGATTCCGA CGCCAAGTCC TACGCCGACC TCAAGCACCG AGTGAGAAAC TATCTCCTCA
CTATCAAGGA GCTGAAGTAC CCACAGTTGT TCGACCTCAC 500
  501 TAATCATATG CTGACACTGT GTGATAACAT TCATGGCTTC AAATATCTGA TTGACGGTTA
CGAAGAGATC AATGAACTCC TGTACAAGTT GAATTTCTAC 600
  601 TTCGACTTGC TAAGGGCCAA ACTGAATGAC GTTTGCGCCA ATGACTATTG TCAAATTCCA
TTCAATTTGA AGATCAGAGC CAACGAGTTG GACGTATTGA 700
  701 AGAAGTTGGT CTTCGGATAT CGCAAGCCTC TCGACAACAT CAAGGACAAT GTGGGAAAGA
TGGAAGATTA TATTAAAAAG AATAAGAAGA CCATCGAGAA 800
  801 CATTAACGAG CTGATCGAAG AATCCAAAAA GACCATAGAC AAAAATAAGA ATGCAACCAA
GGAGGAAGAA AAGAAGAAGT TGTACCAGGC CCAGTACGAC 900
  901 CTGTCCATCT ATAACAAACA GCTTGAAGAA GCCCATAACC TCATCAGCGT ACTGGAGAAG
CGCATAGACA CCCTCAAGAA GAATGAAAAT ATCAAAGAAC 1000
 1001 TGCTCGACAA GATTAATGAA ATTAAGAATC CTCCGCCAGC CAACTCTGGG AACACCCCTA
ACACGCTGCT GGACAAGAAC AAGAAGATAG AGGAGCACGA 1100
 1101 GAAAGAGATC AAAGAGATCG CCAAAACCAT TAAGTTCAAC ATAGATTCTC TCTTTACTGA
TCCCCTTGAG CTGGAGTACT ACTTGAGAGA GAAGAATAAG 1200
 1201 AATATAGACA TCTCCGCCAA AGTCGAGACA AAGGAATCAA CCGAACCTAA TGAATATCCC
AAtGGTGTGA CGTACCCTCT GTCTTATAAC GATATCAACA 1300
 1301 ACGCTCTCAA CGAGCTCAAT AGCTTCGGTG ACTTGATTAA CCCCTTCGAT TATACGAAAG
AACCCTCTAA GAATATCTAC ACAGACAATG AGAGAAAGAA 1400
 1401 GTTTATCAAC GAAATCAAGG AGAAGATCAA AATTGAGAAG AAGAAAATTG AGAGTGACAA
GAAAAGTTAC GAAGACCGCA GCAAAAGTCT AAACGATATC 1500
 1501 ACTAAAGAGT ATGAAAAGCT GCTGAACGAG ATCTATGATT CCAAATTCAA CAATAACATC
GACCTGACCA ACTTCGAGAA AATGATGGGA AAACGGTACT 1600
 1601 CTTACAAAGT GGAGAAACTG ACACACCATA ATACCTTTGC ATCCTATGAG AATTCTAAGC
ATAAtCTTGA GAAGCTCACC AAAGCTCTTA AGTATATGGA 1700
 1701 GGACTATTCT CTGCGGAACA TTGTTGTGGA GAAAGAACTA AAGTATTACA AGAATCTCAT
AAGTAAGATC GAAAACGAGA TCGAGACGCT TGTTGAGAAC 1800
 1801 ATTAAGAAGG ATGAAGAACA GTTGTTTGAG AAGAAGATTA CAAAAGACGA gAATAAgCCA
GAcGAaAAGA TCCTGGAGGT CTCCGAcATc GTTAAAGTCC 1900
 1901 AAGTGCAaAA aGTaCTCCTC ATGAACAAGA TTGATGAACT CAAGAAGACT CAACTCATTC
TGAAGAACGT GGAGTTAAAA CATAATATAC ATGTGCCGAA 2000
 2001 TAGTTATAAG CAGGAGAATA AGCAGGAACC ATACTACCTC ATCGTACTCA AGAAAGAGAT
AGACAAACTG AAAGTGTTCA TGCCcAAaGT cGAGAGCCTG 2100
 2101 ATCAACGAAG AGAAGAAGAA CATTAAaACT GAaGGACAGT CaGATAACTC cGAGCCTTCc
ACAGAAGGAG AGATAACCGG aCAGGCTACC ACCAAGCCcG 2200
 2201 GaCAaCAGGC CGGTTCaGCt CTCGAaGGCG ATAGCGTGCA AGCtCAAGCA CAAGAGCAGA
AGCAGGCACA GCCtCCAGTG CCAGTgCCcG TtCCAGAGGC 2300
 2301 TAAaGCtCAA GTGCCtACAC CACCAGCtCC tGTGAATAAC AAGACCGAGA ATGTCAGCAA
aCTGGACTAC CTtGAGAAGC TCTATGAGTT CCTGAATACa 2400
 2401 TCCTACATCT GCCACAAaTA TATCCTCGTC TCtCACAGCA CTATGAACGA GAAGATTCTt
AAaCAGTACA AGATAACCAA GGAAGAGGAG AGTAAaCTGT 2500
 2501 CCTCTTGTGA tCCActgGAC CTGCTGTTCA ATATCCAGAA CAACATtCCc GTtATGTATT
CTATGTTcGA TAGCCTCAAC AATTCtCTCT CTCAActgTT 2600
 2601 CATGGAGATa TATGAGAAGG AGATGGTcTG CAACCTGTAT AAaCTCAAaG ACAACGACAA
GATTAAGAAC cttctgGAGG AAGCTAAGAA GGTCTCCACC 2700
 2701 TCtGTtAAaA CTCTCTCTTC CAGcTCCATG CAACCACTGT CtCTCACACC tCAAGACAAG
CCcGAAGTgA GCGCTAACGA CGACACCTCT CACTCgACCA 2800
 2801 ACCTtAATAA CTCaCTGAAa CTGTTtGAGA ACATCCTgTC tCTcGGcAAG AATAAGAACA
TCTACCAAGA aCTtATTGGA CAGAAaTCgT CCGAGAACTT 2900
 2901 CTACGAGAAG ATACTGAAaG ACAGCGACAC ATTCTATAAC GAGAGcTTcA CTAAcTTcGT
gAAaTCTAAa GCCGATGATA TcAACTCtCT tAACGATGAa 3000
```

Figure 32 (Contd..)

```
  3001 TCTAAaCGtA AGAAgCTGGA aGAGGACATC AATAAgctgA AgAAGACaCT gCAaCTGagc
TTCGACcTGT AcAACAAGTA cAAaCTGAAa CTGGAGAGAC 3100
  3101 TCTTCGACAA GAAgAAGACA GTCGGCAAGT ATAAGATGCA GATCAAGAAG tTGACTCTGC
TCAAGGAGCA GCTtGAaAGC AAaCTCAACt caCTGAACAA 3200
  3201 TCCgAAaCAC GTaCTGCAgA ACTTCtcaGT GTTCTTCAAC AAGAAGAAGG AaGCCGAGAT
CGCCGAGACA GAGAACACTC TGGAGAACAC CAAGATTCTt 3300
  3301 CTCAAaCACT ACAAaGGCCT CGTCAAGTAT TATAATGGCG AGTCTTCTCC TCTGAAGACT
CTCTCCGAGG AGAGCATCCA GACCGAGGAT AACTACGCCA 3400
  3401 GCCTCGAGAA CTTCAAGGTC CTGTCTAAGC TCGAAGGCAA GCTGAAGGAC AACCTGAACC
TGGAGAAGAA GAAGCTCAGC TACCTCTCTA GCGGACTGCA 3500
  3501 TCACCTGATC GCCGAGCTCA AGGAAGTCAT TAAGAACAAG AACTACACCG GCAATAGCCC
AAGCGAGAAT AATACAGACG TGAATAACGC ACTGGAATCT 3600
  3601 TAtAAGAAGT TCCTGCCTGA AGGAACAGAT GTCGCCACTG TGGTGTCTGA ATCTGGCTCC
GACACACTGG AGCAGTCTCA ACCTAAGAAG CCTGCATCTA 3700
  3701 CTCATGTCGG AGCCGAGTCC AATACAATTA CCACATCTCA GAACGTCGAC GATGAGGTCG
ATGACGTCAT CATTGTGCCT ATCTTCGGCG AGAGCGAGGA 3800
  3801 GGACTACGAT GACCTCGGCC AGGTGGTCAC CGGAGAGGCT GTCACTCCTT CCGTGATTGA
TAACATTCTG TCCAAAATCG AGAACGAATA CGAAGTGCTC 3900
  3901 TATCTGAAAC CTCTGGCAGG CGTCTATAGG TCTCTCAAGA AACAGCTGGA GAATAACGTG
ATGACCTTCA ATGTCAACGT GAAGGACATT CTGAACAGCC 4000
  4001 GCTTTAATAA GAGAGAAAAT TTCAAGAACG TCTTGGAGAG CGACTTGATT CCCTATAAAG
ACCTGACCTC CTCTAACTAt GTTGTCAAGG ACCCATACAA 4100
  4101 GTTCCTCAAT AAAGAGAAGA GGGATAAATT TCTGTCTAGc TACAACTATA TCAAGGACTC
CATCGACACC GATATCAATT TCGCTAATGA TGTGCTGGGG 4200
  4201 TATTACAAGA TCCTGAGCGA AAAATACAAG TCTGACCTTG ACTCTATTAA AAAGTATATC
AACGATAAGC AAGGCGAGAA TGAAAAATAT CTGCCCTTCC 4300
  4301 TGAATAACAT CGAAACCCTG TACAAGACAG TGAACGACAA AATCGACCTC TTCGTaATTC
ACCTGGAGGC CAAGGTCCTC AACTATACTT ACGAGAAGAG 4400
  4401 CAATGTGGAA GTTAAAATCA AGGAGCTGAA CTACCTCAAA ACAATCCAAG ACAAGCTGGC
AGATTTCAAG AAAAATAACA ATTTCGTCGG AATTGCAGAC 4500
  4501 CTGTCtACCG ATTATAACCA CAACAATCTC CTGACCAAGT TTCTGTCCAC TGGCATGGTG
TTCGAAAACC TCGCCAAAAC AGTGCTGAGC AATCTGCTCG 4600
  4601 ACGGCAACCT GCAGGGCATG CTGAACATCT CCCAGCACCA ATGCGTGAAG AAACAGTGCC
CCCAGAATAG CGGCTGTTTC AGGCATCTGG ACGAGCGCGA 4700
  4701 AGAGTGCAAG TGTCTCCTGA ACTACAAACA AGAAGGAGAT AAGTGCGTGG AGAACCCAAA
CCCTACCTGC AATGAAAACA ATGGCGGGTG TGACGCCGAT 4800
  4801 GCTAAATGCA CCGAGGAAGA CAGCGGCTCT AACGGAAAGA AAATCACATG CGAGTGTACT
AAGCCCGACT CCTATCCACT CTTcgacggg atCttCtgct 4900
  4901 ccagctctAG CAAcgttACT ACTTCCGGCA CTACCCGTCT TCTATCTGGT CACACGTGTT
TCACGTTGAC AGGTTTGCTT GGGACGCTAG TAACCATGGG 5000
  5001                                CTTGCTGACT                        TAA
5013
          |   10      |   20      |   30      |   40      |   50      |   60      |
70      |   80      |   90      |  100
```

Figure 32

```
      |   10      |   20      |   30      |   40      |   50      |   60      |   70
                        |   80      |   90      |  100
    1  atgatgagga  aactggccat  cctgagcgtg  agcagcttcc  tgttcgtgga     ggccctgttt
caggagtacc agtgctacgg cagcagcagc aacacccggg 100
  101  tgctgaacga  gctgaactac  gacaacgccg  gcaccaacct  gtacaacgag     ctggagatga
actactacgg caagcaggag aactggtaca gcctgaagaa 200
  201  gaacagccgg  tctctgggcg  agaacgacga  cggcaacaac  aacaacggcg     acaacggccg
ggagggcaag gacgaggaca agcgggacgg caacaacgag 300
  301  gacaacgaga  agctgcggaa  gcccaagcac  aagaaactta  agcagcccgc     cgacggcaac
cccgacccca acgccaaccc caacgtggac cccaacgcca 400
  401  atcctaatgt  cgaccccaat  gccaatccga  acgttgatcc  caatgcgaat     cctaacgcta
accccaatgc caacccaaat gccaatccaa atgcaaatcc 500
  501  caacgccaat  ccaaacgcaa  accctaatgc  taatccaaac  gctaatccta     atgccaatcc
caatgctaac ccaaacgtcg atcctaacgc aaatccgaac 600
  601  gctaacccca  acgcaaatcc  caacgctaac  ccgaacgcaa  accctaacgc     caatccgaat
gccaacccaa acgccaaccc gaacgctaat ccgaatgcta 700
  701  acccgaatgc  taatcctaac  gcaaacccaa  aCgcaaaccc  caatgcaaac     ccAaaTgcca
atcccaacgc caatcctaat gccaacaaga acaatcaggg 800
  801  caacggccag  ggccacaaca  tgcccaacga  ccccaaccgg  aacgtggacg     agaacgccaa
cgccaacagc gccgtgaaga acaacaacaa cgaggagccc 900
  901  agcgacaagc  acatcaagga  gtacctgaac  aagatccaga  acagcctgag     caccgagtgg
agcccctgca gcgtgacctg cggcaacggc attcaggtgc 1000
 1001  ggatcaagcc  cggcagcgcc  aacaagccca  aggacgagct  ggactacgcc     aatgacatcg
agaagaagat ctgcaagatg gagaagtgca gcagcgtgtt 1100
 1101                              caacgtggtg                      aactcctga
1119
          |   10      |   20      |   30      |   40      |   50      |   60      |
70      |   80      |   90      |  100
```

Figure 33

```
|                10        |   20        |   30        |   40        |   50        |   60        |
70        |   80        |   90        |  100
      1  GGTACCGTCA CGCGTCACCG GTGTCATCAT GACCGTGGCC AGGCCCTCTG TGCCTGCCGC
CCTGCCCCTG CTGGGCGAGC TGCCCCGGCT GCTGCTCCTG 100
   101  GTGCTGCTGT GCCTGCCCGC CGTGTGGGGA TCCGTGATCG AGATCGTGGA GCGGAGCAAC
TACATGGGCA ACCCCTGGAC CGAGTACATG GCCAAGTACG 200
   201  ACATCGAGGA AGTGCACGGC AGCGGCATCC GGGTGGACCT GGGCGAGGAC GCCGAGGTGG
CCGGCACCCA GTACAGGCTG CCCAGCGGCA AGTGCCCCGT 300
   301  GTTCGGCAAG GGCATCATCA TCGAGAACAG CCAGACCACC TTCCTGACCC CCGTGGCCAC
CGAGAACCAG GACCTGAAGG ACGGCGGCTT CGCCTTCCCC 400
   401  CCCACCAAGC CCCTGATGAG CCCCATGACC CTGGACCAGA TGCGGCACTT CTACAAGGAC
AACGAGTACG TGAAGAACCT GGACGAGCTG ACCCTGTGCA 500
   501  GCCGGCACGC CGGCAACATG AACCCCGACA ACGACAAGAA CAGCAACTAC AAGTACCCCG
CCGTGTACGA CGACAAGGAT AAGAAGTGCC ACATCCTGTA 600
   601  TATCGCCGCC CAGGAAAACA ACGGCCCCAG GTACTGCAAC AAGGACGAGA GCAAGCGGAA
CAGCATGTTC TGCTTCAGAC CCGCCAAGGA CAAGAGCTTC 700
   701  CAGAACTACG TGTACCTGAG CAAGAACGTG GTGGACAACT GGGAGAAAGT GTGCCCCCGG
AAGAATCTGG AAAACGCCAA GTTCGGCCTG TGGGTGGACG 800
   801  GCAACTGCGA GGACATCCCC CACGTGAACG AGTTCAGCGC CAACGACCTG TTCGAGTGCA
ACAAGCTGGT GTTCGAGCTG TCCGCCAGCG ACCAGCCCAA 900
   901  GCAGTACGAG CAGCACCTGA CCGACTACGA GAAGATCAAA GAGGGCTTCA AGAACAAGAA
CGCCGACATG ATCAAGAGCG CCTTTCTGCC AACTGGCGCC 1000
  1001  TTCAAGGCCG ACAGATACAA GAGCCACGGC AAGGGCTACA ACTGGGGCAA CTACAACAGA
AAGACCCAGA AGTGCGAGAT CTTCAACGTG AAGCCCACCT 1100
  1101  GCCTGATCAA CGACAAGTCC TATATCGCCA CCACCGCCCT GAGCCACCCC ATCGAGGTGG
AGCACAACTT CCCTTGCAGC CTGTACAAGG ATGAGATCAA 1200
  1201  GAAAGAGATC GAGCGGGAGA GCAAGAGGAT CAAGCTGAAC GACAACGACG ACGAGGGCAA
CAAGAAGATC ATTGCCCCCA GGATCTTCAT CAGCGACGAT 1300
  1301  AAGGACAGCC TGAAGTGCCC CTGCGACCCC GAGATCGTGT CCCAGAGCAC CTGCAATTTC
TTCGTGTGCA AATGCGTGGA GAAGCGGGCC GAAGTGACCA 1400
  1401  GCAACAACGA GGTGGTGGTG AAAGAGGAAT ATAAGGACGA GTACGCCGAC ATCCCCGAGC
ACAAGCCCAC CTACGACAAG ATGAAGATCA TCATTGCCAG 1500
  1501  CTCTGCCGCC GTGGCCGTGC TGGCCACCAT CCTGATGGTG TACCTGTACA AGCGGAAGGG
CAACGCCGAG AAGTACGATA AGATGGACCA GCCTCAGCAC 1600
  1601  TACGGCAAGA GCACCAGCCG GAACGACGAG ATGCTGGACC CCGAGGCCAG CTTCTGGGGC
GAGGAAAAGA GAGCTAGCCA CACCACCCCC GTGCTGATGG 1700
  1701          AAAAGCCCTA          CTACTGATGA          GCGCGCCTGA          GCTC
1734
          |   10        |   20        |   30        |   40        |   50        |   60        |
70        |   80        |   90        |  100
```

Figure 34

```
        |   10      |   20      |   30      |   40      |   50      |   60      |   70
                              |   80      |   90      |  100
      1  GGTACCGTCA  CGCGTCACCG  GTGTCATCAT  GACCGTGGCC  AGGCCCTCTG     TGCCTGCCGC
CCTGCCCCTG CTGGGCGAGC TGCCCCGGCT GCTGCTCCTG 100
    101  GTGCTGCTGT  GCCTGCCCGC  CGTGTGGGGA  TCCGTGATCG  AGATCGTGGA     GCGGAGCAAC
TACATGGGCA ACCCCTGGAC CGAGTACATG GCCAAGTACG 200
    201  ACATCGAGGA  AGTGCACGGC  AGCGGCATCC  GGGTGGACCT  GGGCGAGGAC     GCCGAGGTGG
CCGGCACCCA GTACAGGCTG CCCAGCGGCA AGTGCCCCGT 300
    301  GTTCGGCAAG  GGCATCATCA  TCGAGAACAG  CCAGACCACC  TTCCTGACCC     CCGTGGCCAC
CGAGAACCAG GACCTGAAGG ACGGCGGCTT CGCCTTCCCC 400
    401  CCCACCAAGC  CCCTGATGAG  CCCCATGACC  CTGGACCAGA  TGCGGCACTT     CTACAAGGAC
AACGAGTACG TGAAGAACCT GGACGAGCTG ACCCTGTGCA 500
    501  GCCGGCACGC  CGGCAACATG  AACCCCGACA  ACGACAAGAA  CAGCAACTAC     AAGTACCCCG
CCGTGTACGA CGACAAGGAT AAGAAGTGCC ACATCCTGTA 600
    601  TATCGCCGCC  CAGGAAAACA  ACGGCCCCAG  GTACTGCAAC  AAGGACGAGA     GCAAGCGGAA
CAGCATGTTC TGCTTCAGAC CCGCCAAGGA CAAGAGCTTC 700
    701  CAGAACTACG  TGTACCTGAG  CAAGAACGTG  GTGGACAACT  GGGAGAAAGT     GTGCCCCCGG
AAGAATCTGG AAAACGCCAA GTTCGGCCTG TGGGTGGACG 800
    801  GCAACTGCGA  GGACATCCCC  CACGTGAACG  AGTTCAGCGC  CAACGACCTG     TTCGAGTGCA
ACAAGCTGGT GTTCGAGCTG TCCGCCAGCG ACCAGCCCAA 900
    901  GCAGTACGAG  CAGCACCTGA  CCGACTACGA  GAAGATCAAA  GAGGGCTTCA     AGAACAAGAA
CGCCGACATG ATCAAGAGCG CCTTTCTGCC AACTGGCGCC 1000
   1001  TTCAAGGCCG  ACAGATACAA  GAGCCACGGC  AAGGGCTACA  ACTGGGGCAA     CTACAACAGA
AAGACCCAGA AGTGCGAGAT CTTCAACGTG AAGCCCACCT 1100
   1101  GCCTGATCAA  CGACAAGTCC  TATATCGCCA  CCACCGCCCT  GAGCCACCCC     ATCGAGGTGG
AGCACAACTT CCCTTGCAGC CTGTACAAGG ATGAGATCAA 1200
   1201  GAAAGAGATC  GAGCGGGAGA  GCAAGAGGAT  CAAGCTGAAC  GACAACGACG     ACGAGGGCAA
CAAGAAGATC ATTGCCCCCA GGATCTTCAT CAGCGACGAT 1300
   1301  AAGGACAGCC  TGAAGTGCCC  CTGCGACCCC  GAGATCGTGT  CCCAGAGCAC     CTGCAATTTC
TTCGTGTGCA AATGCGTGGA GAAGCGGGCC GAAGTGACCA 1400
   1401  GCAACAACGA  GGTGGTGGTG  AAAGAGGAAT  ATAAGGACGA  GTACGCCGAC     ATCCCCGAGC
ACAAGCCCAC CTACGACAAG ATGTGATGAT GAGCGCGCCT 1500
   1501                                                                GAGCTC
1506
        |   10      |   20      |   30      |   40      |   50      |   60      |   70
                              |   80      |   90      |  100
```

Figure 35

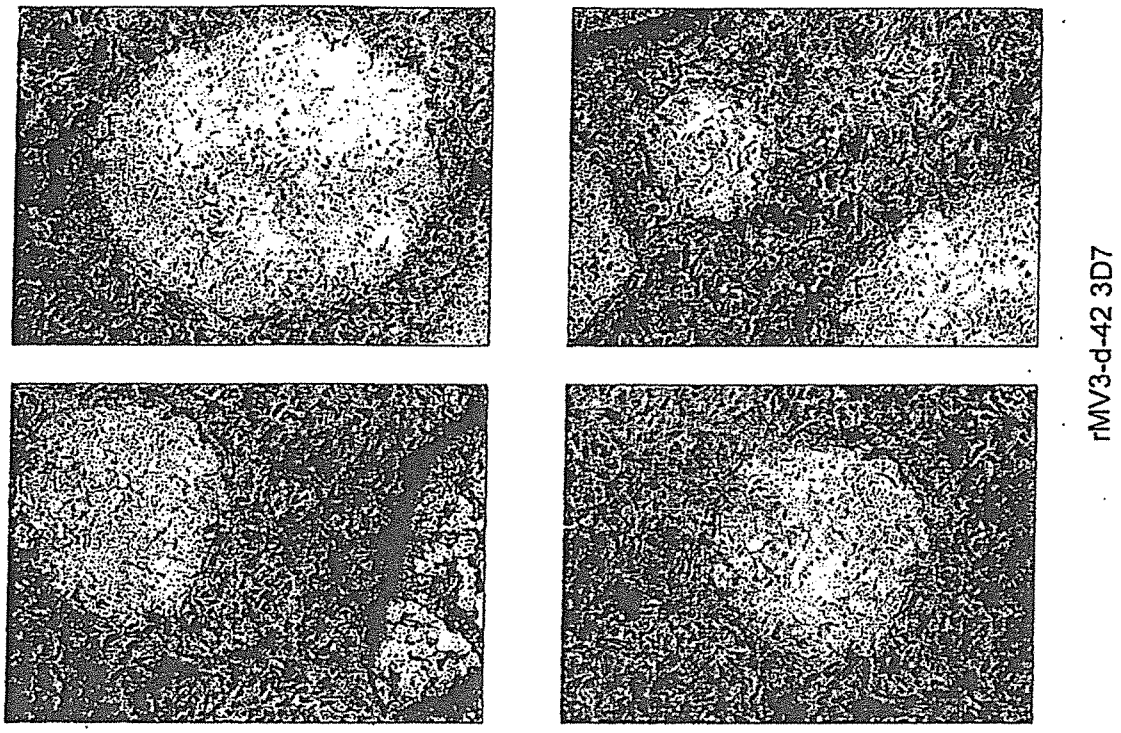
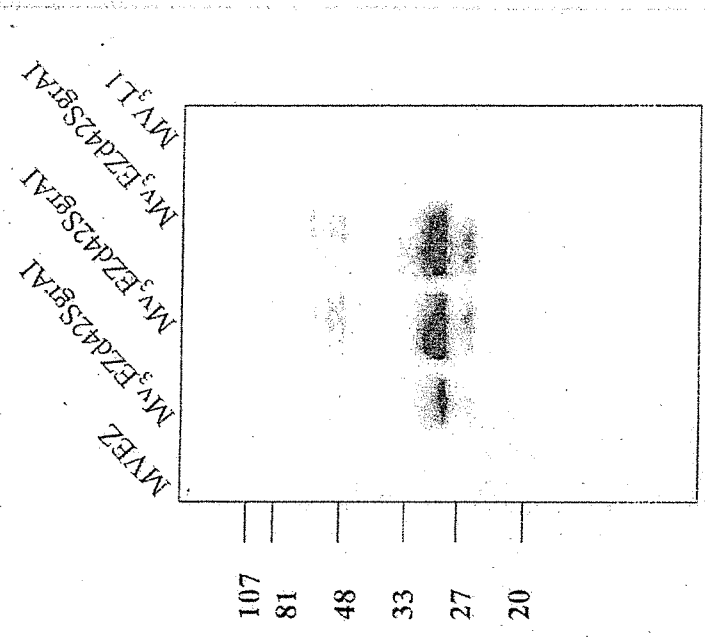


Figure 36

Figure 37


MVEZ
MV$_3$EZd42SgtAL
MV$_3$EZd42SgtAL
MV$_3$EZd42SgtAL
MV$_3$L1
107
81
48
33
27
20

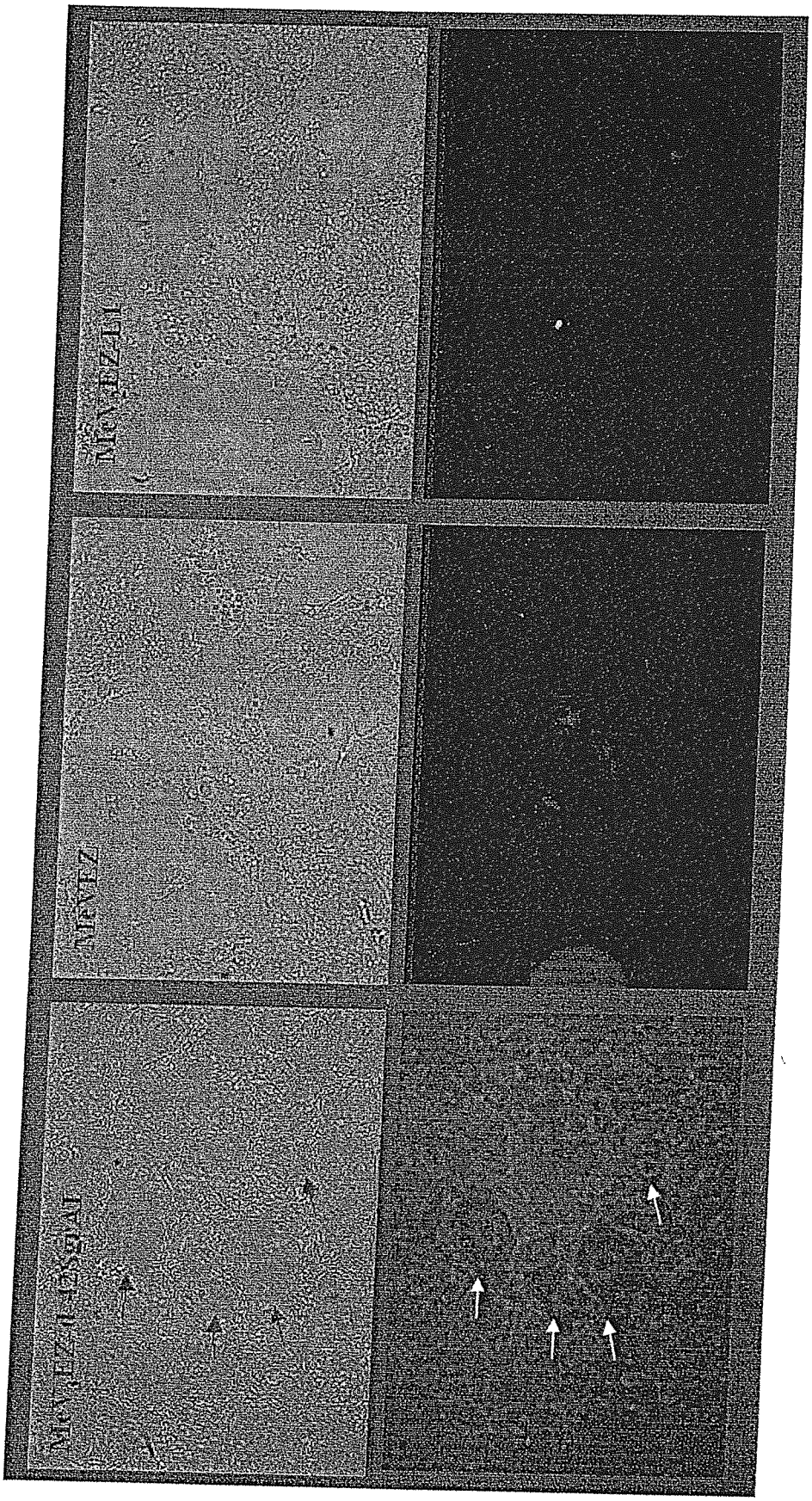


Figure 38

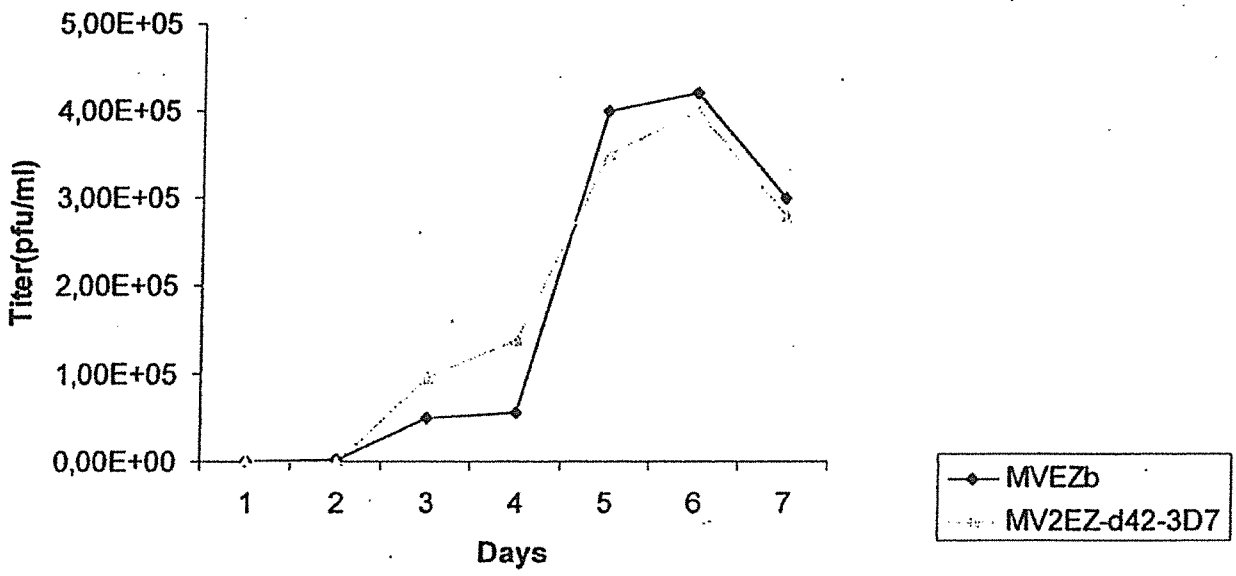

5,00E+05
4,00E+05
3,00E+05
2,00E+05
1,00E+05
0,00E+00
Titer(pfu/ml)
1
2
3
4
5
6
7
Days
MVEZb
MV2EZ-d42-3D7

Figure 39

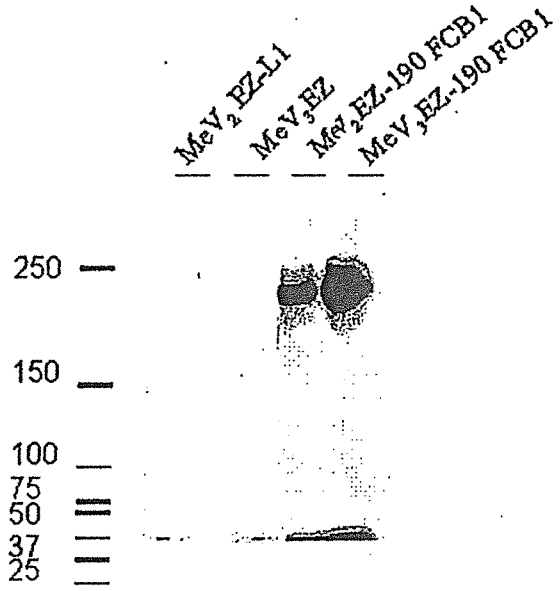

MeV2EZ-L1
MeV3EZ
MeV2EZ-190 FCB1
MeV3EZ-190 FCB1
250
150
100
75
50
37
25

Figure 40

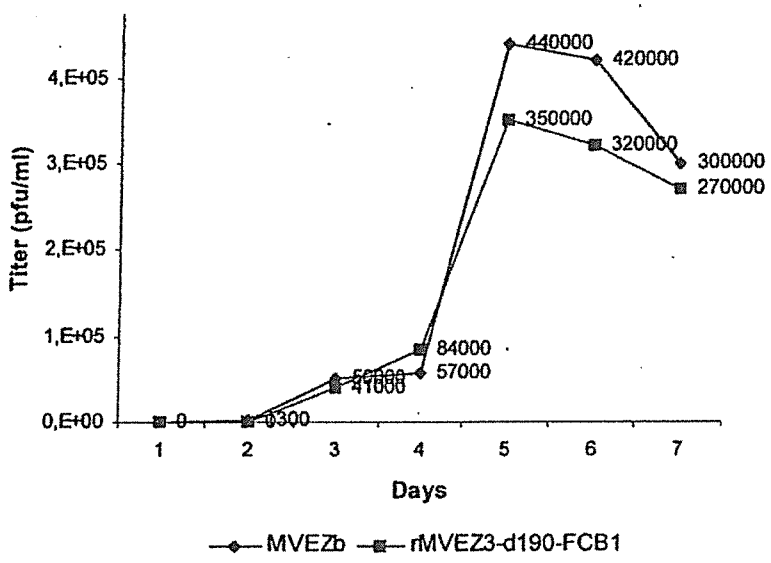
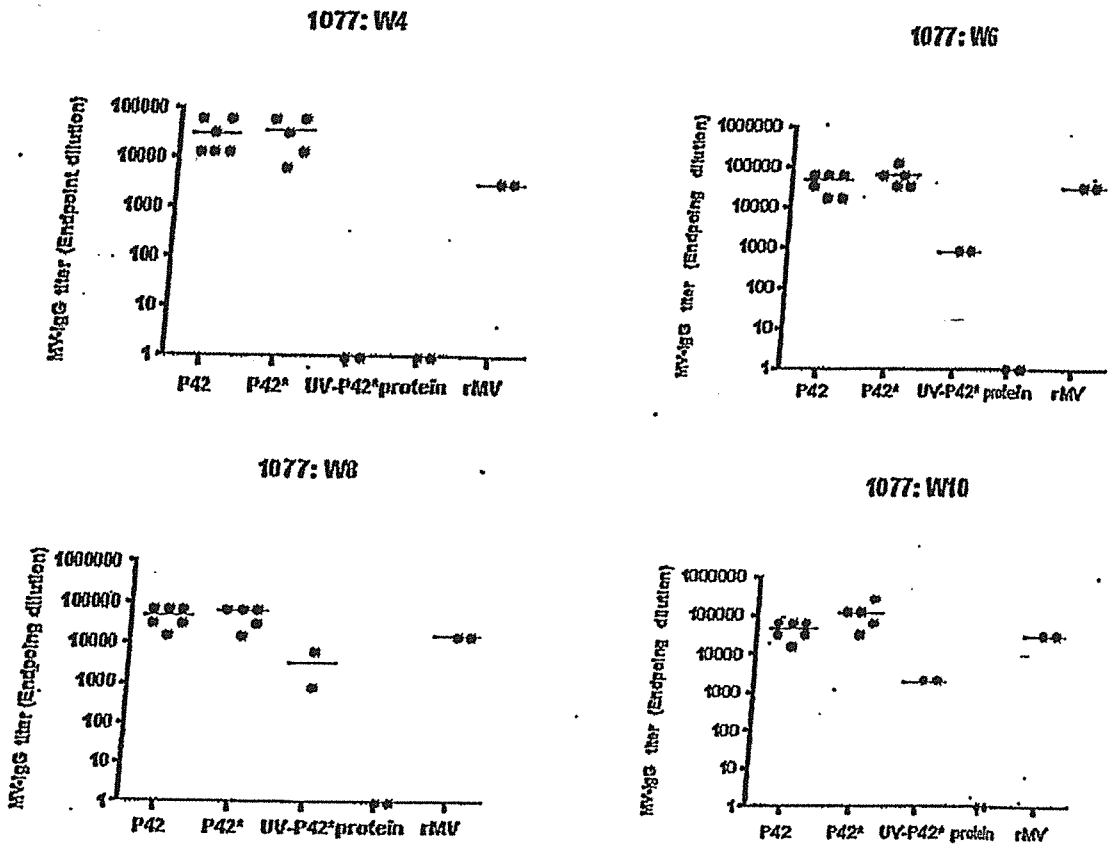

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2,E+05
1,E+05
0,E+00
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2
3
4
5
6
7
Days
440000
420000
350000
320000
300000
270000
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57000
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0300
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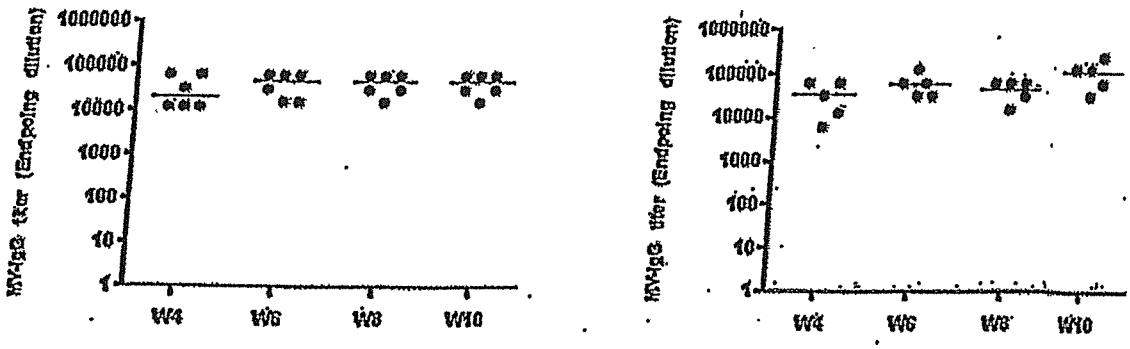
Figure 41

Humoral response against Measles



rMeV2EZ-d-p42-SgrAI

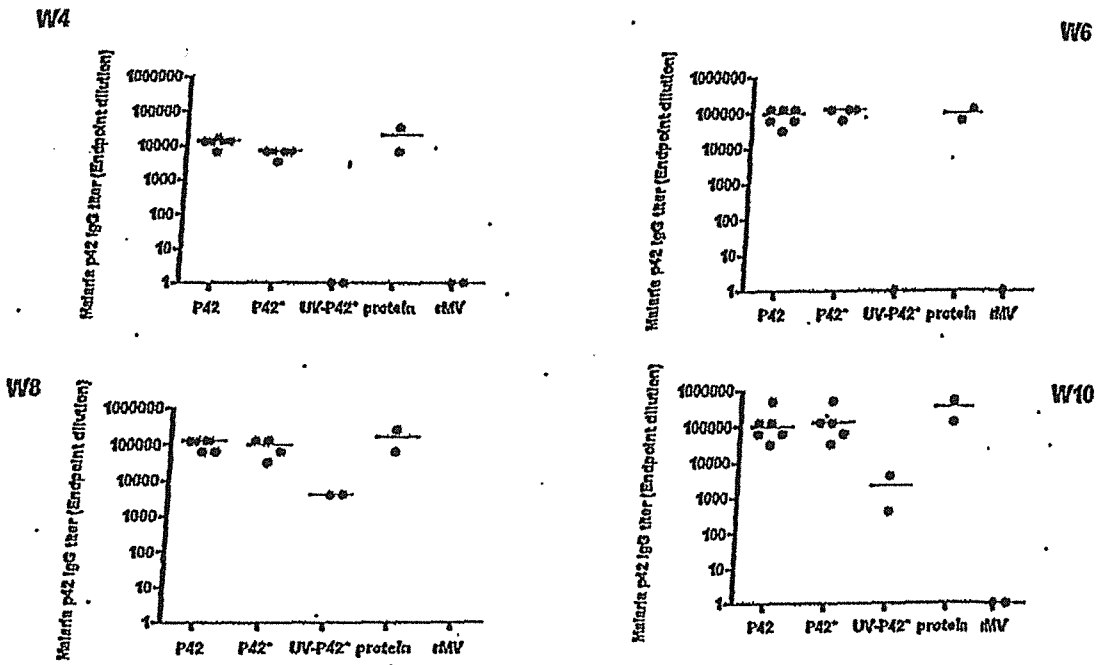
rMeV2EZ-d-p42*-SgrAI



Blood was taken regularly and tested for Measles IgG Titers.

Figure 42

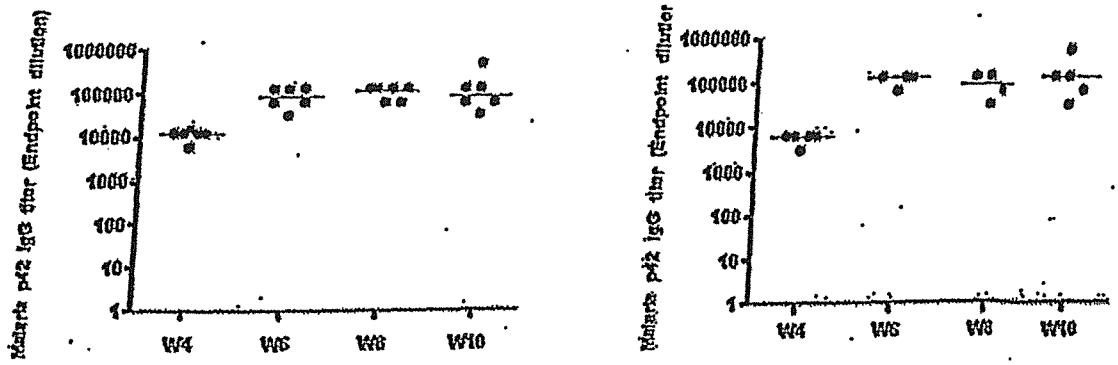
Humoral response against Malaria



5

rMeV2EZ-d-p42-SgrAI

rMeV2EZ-d-p42*-SgrAI



10

Blood was taken regularly and tested for Malaria IgG Titers

Figure 43