

FIG. 1A

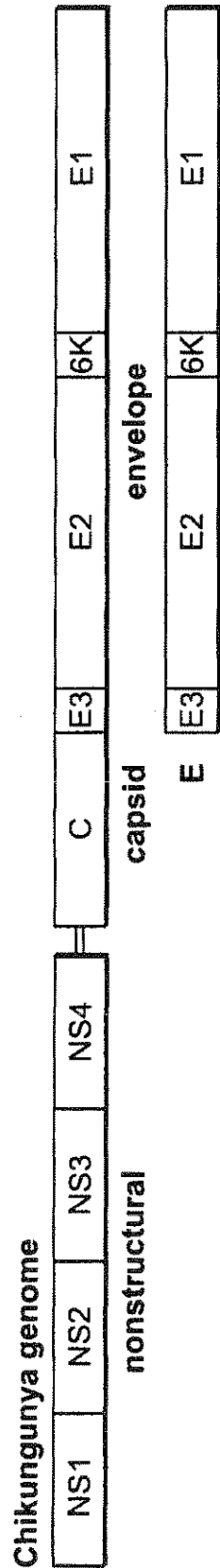
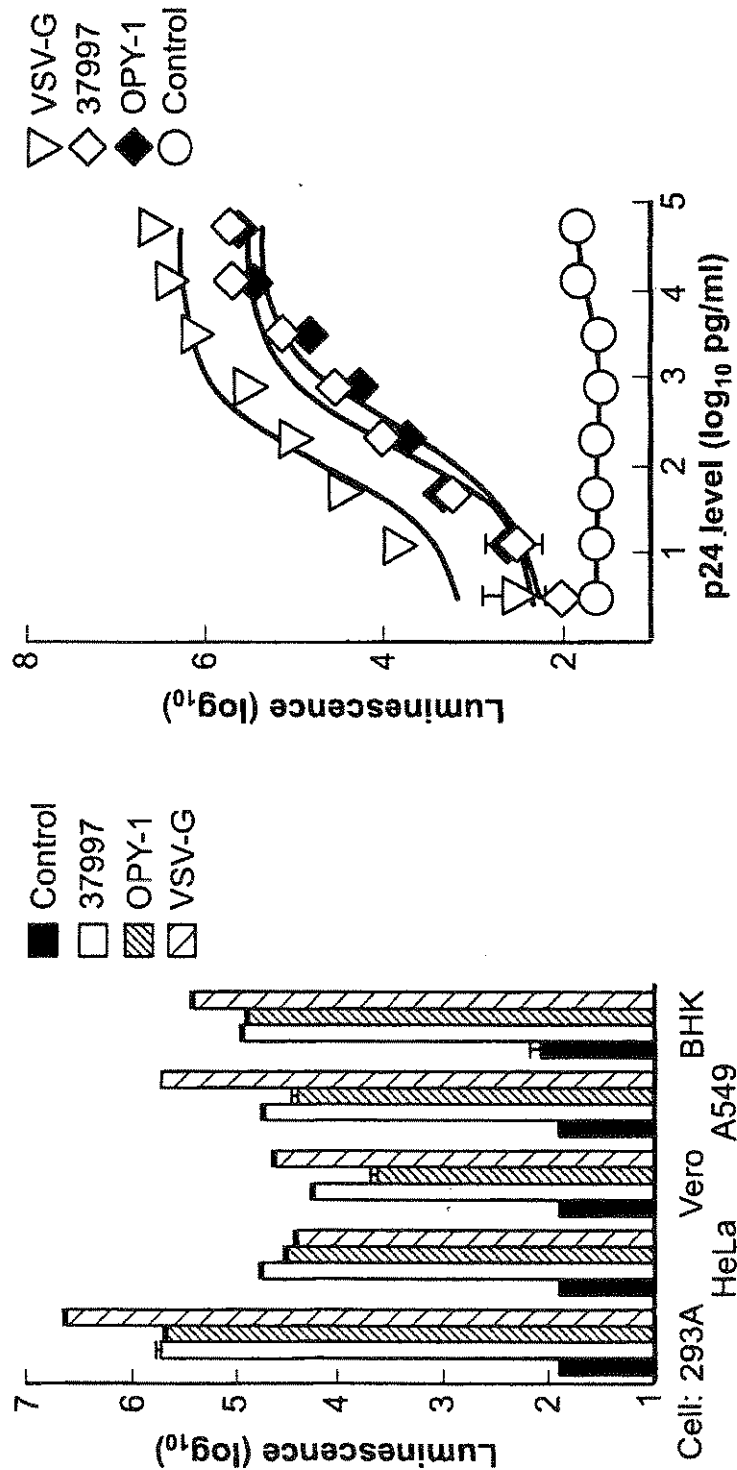


FIG. 1B



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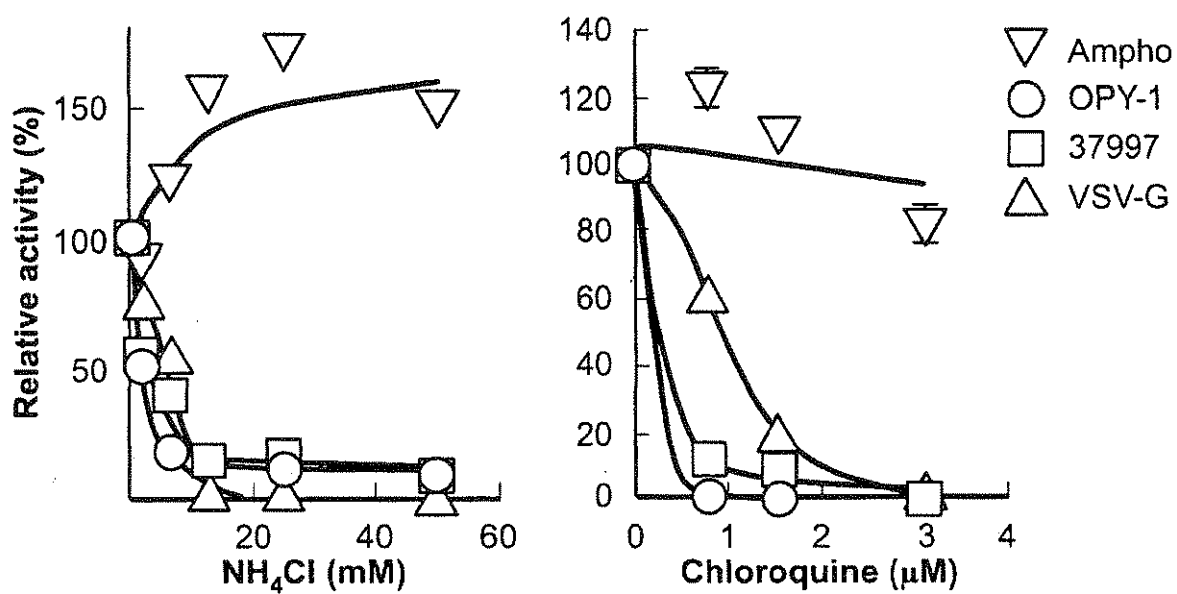


FIG. 1C

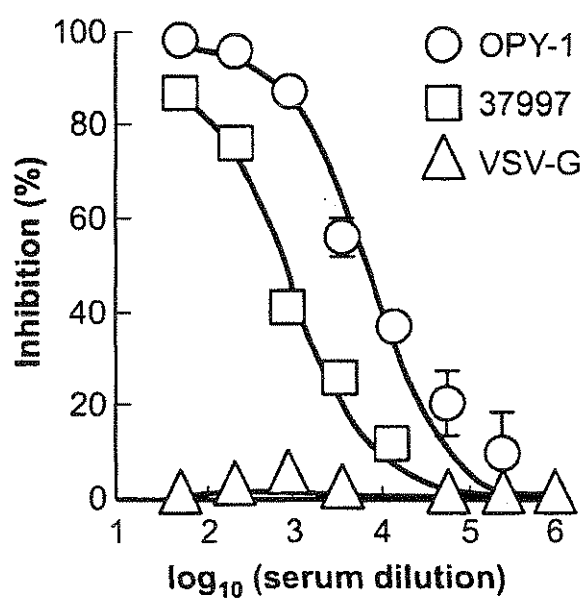
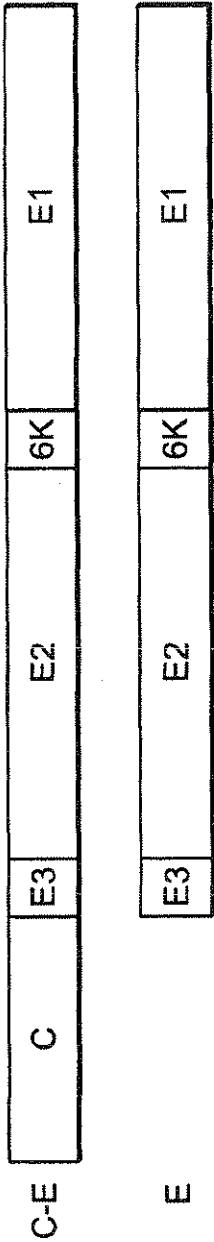


FIG. 1D



Strain: 37997 OPY-1

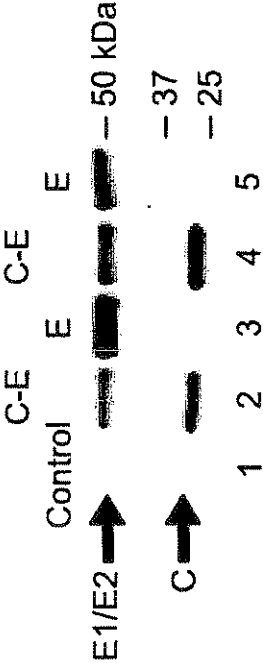


FIG. 2A

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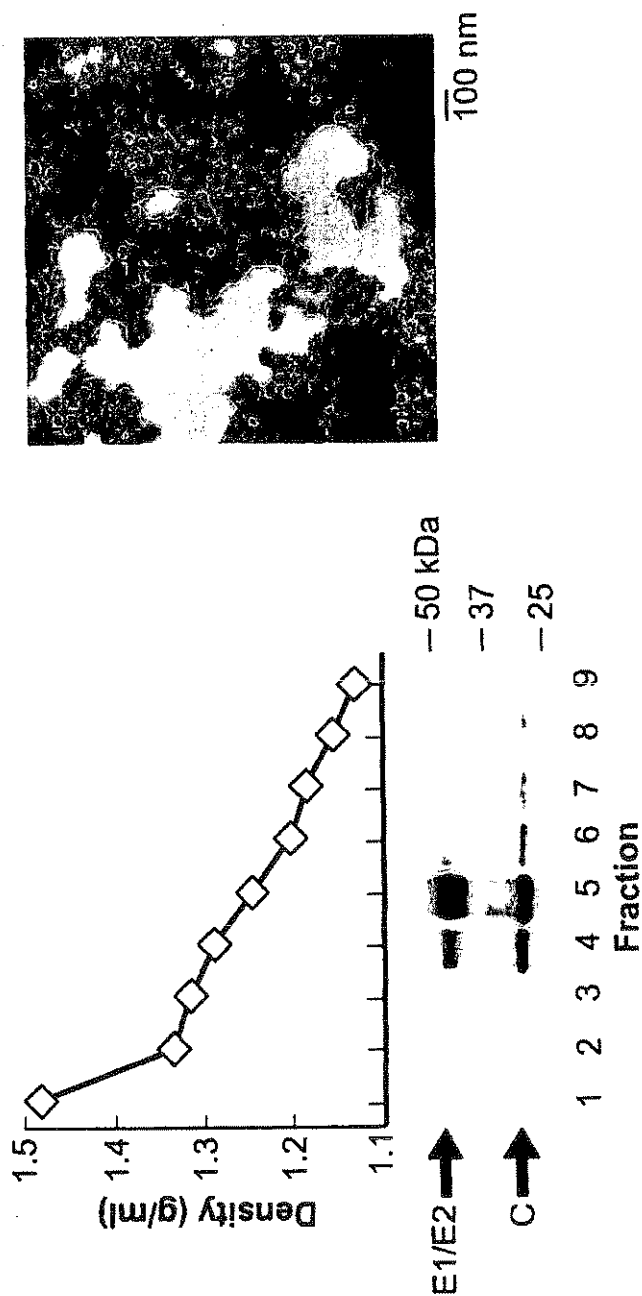


FIG. 2B

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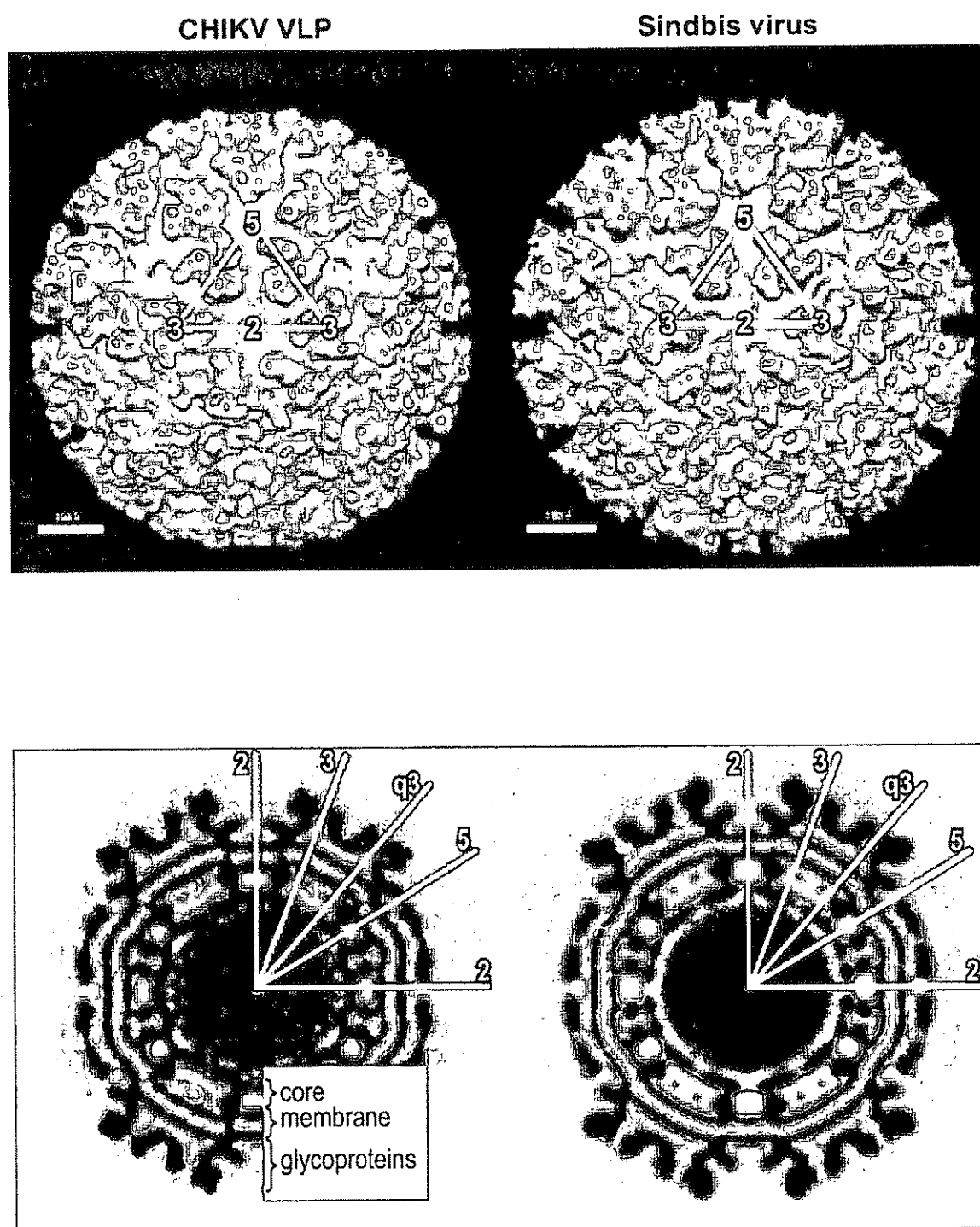


FIG. 2C

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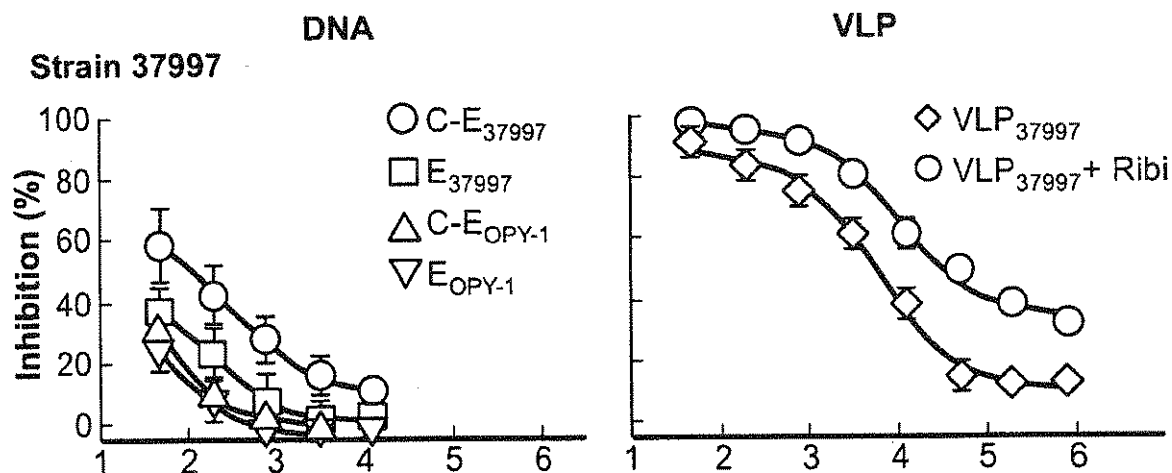


FIG. 3A

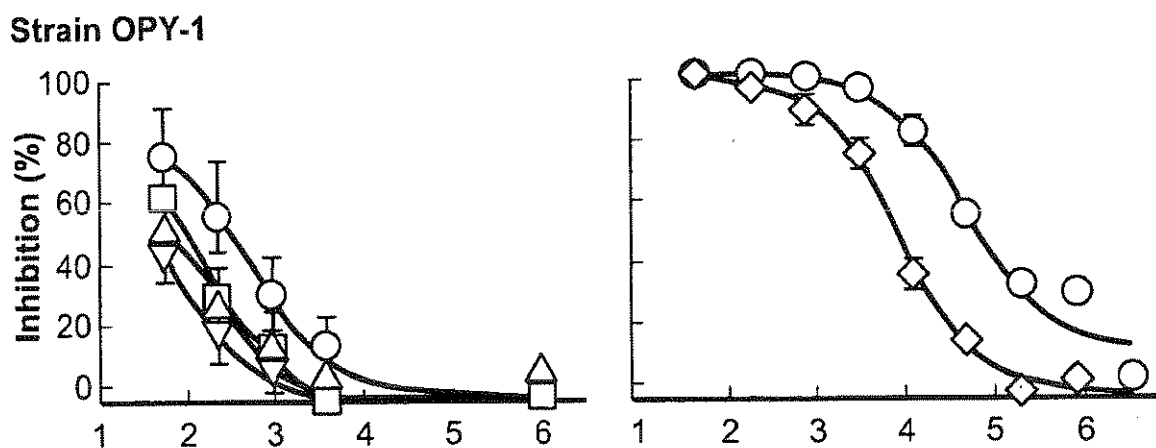


FIG. 3B

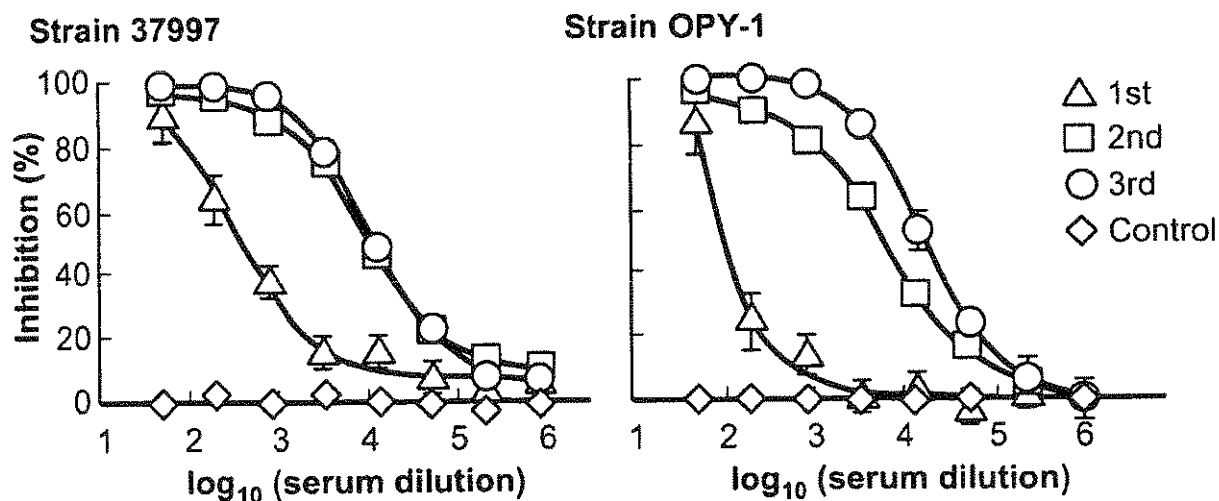


FIG. 3C

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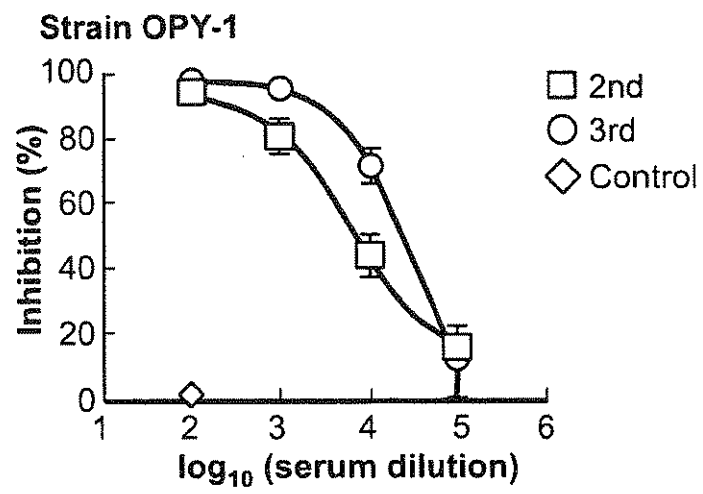


FIG. 3D

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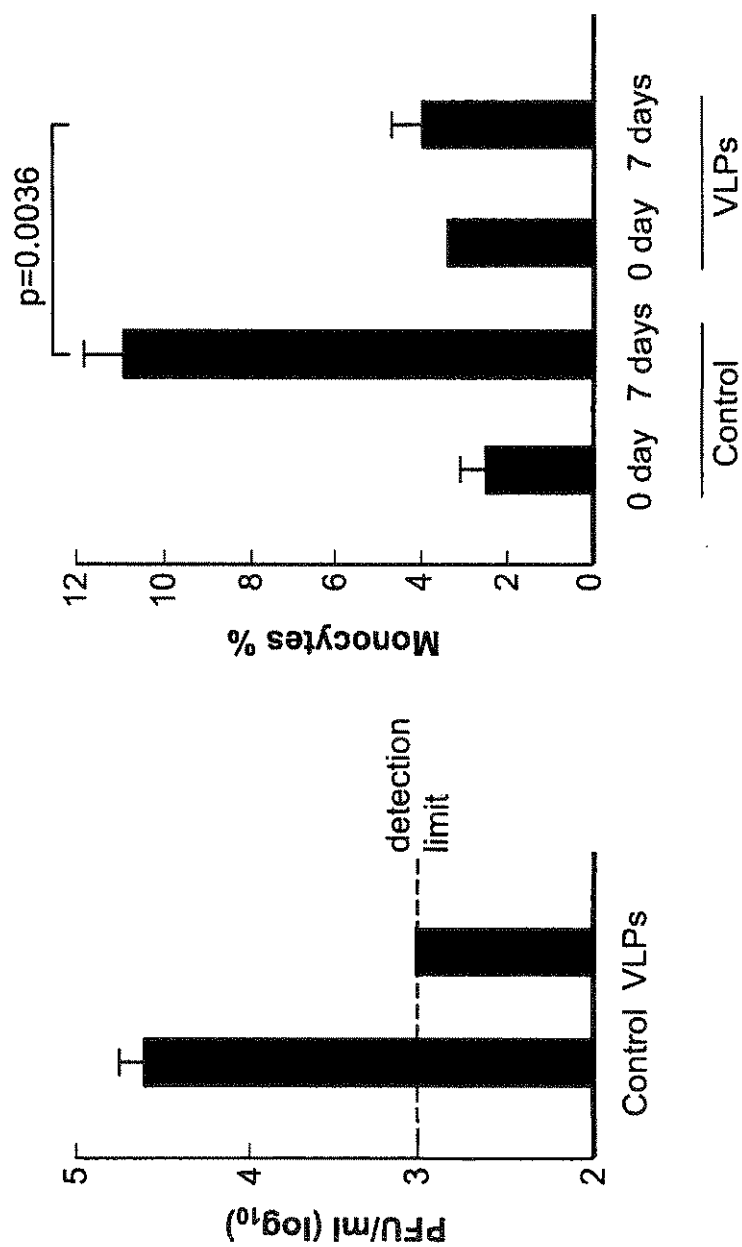


FIG. 4B

FIG. 4A

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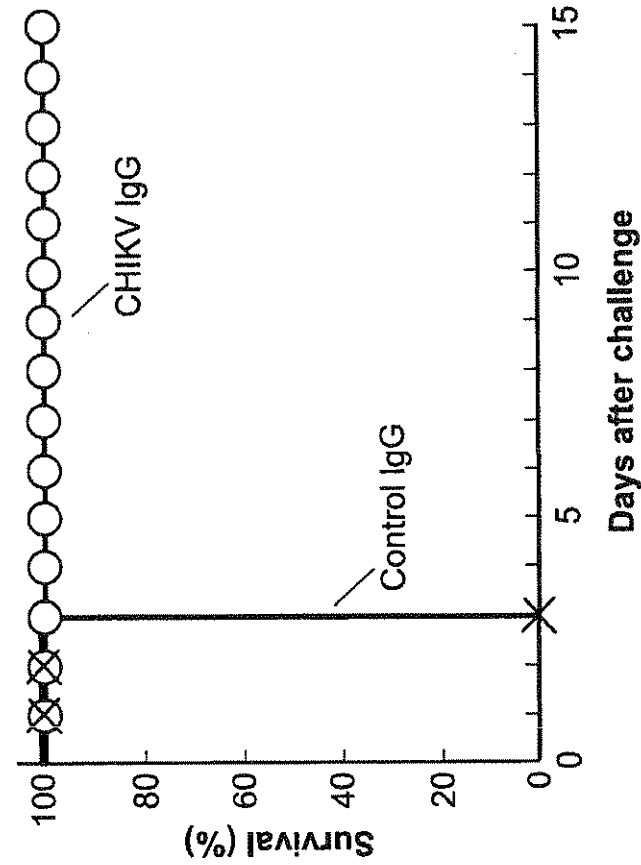


FIG. 4D

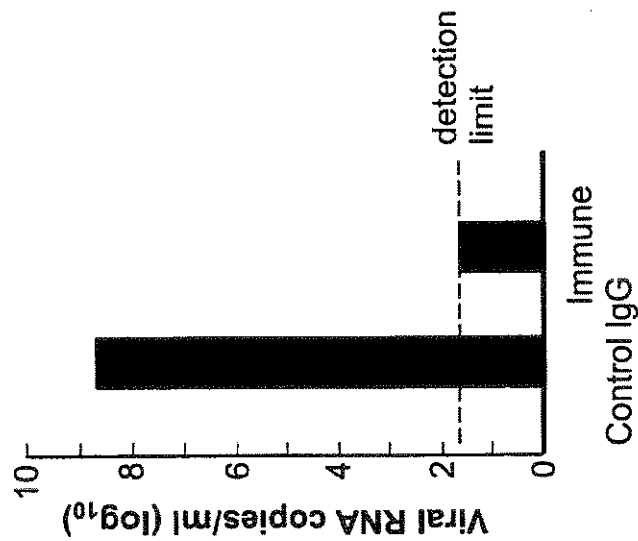


FIG. 4C

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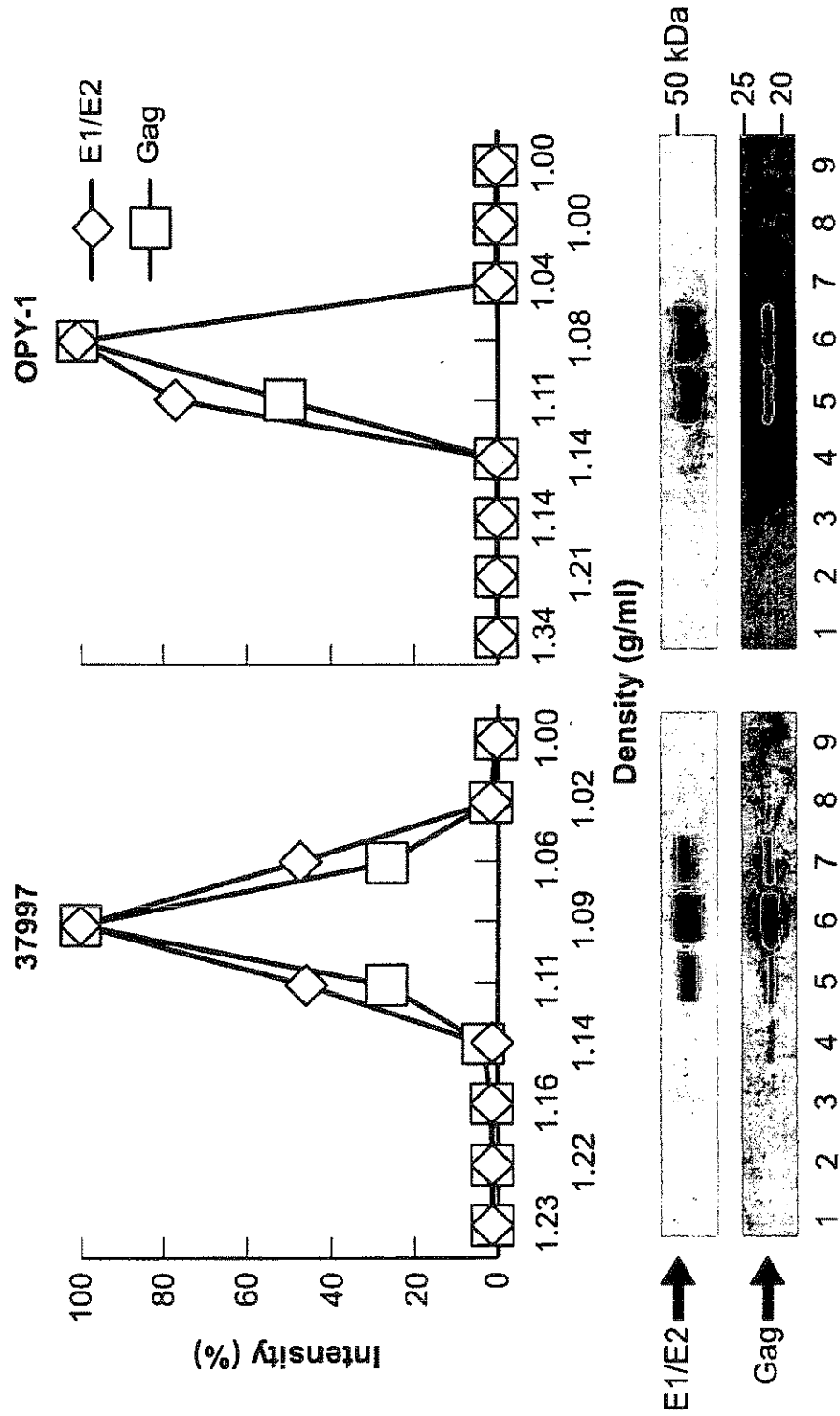
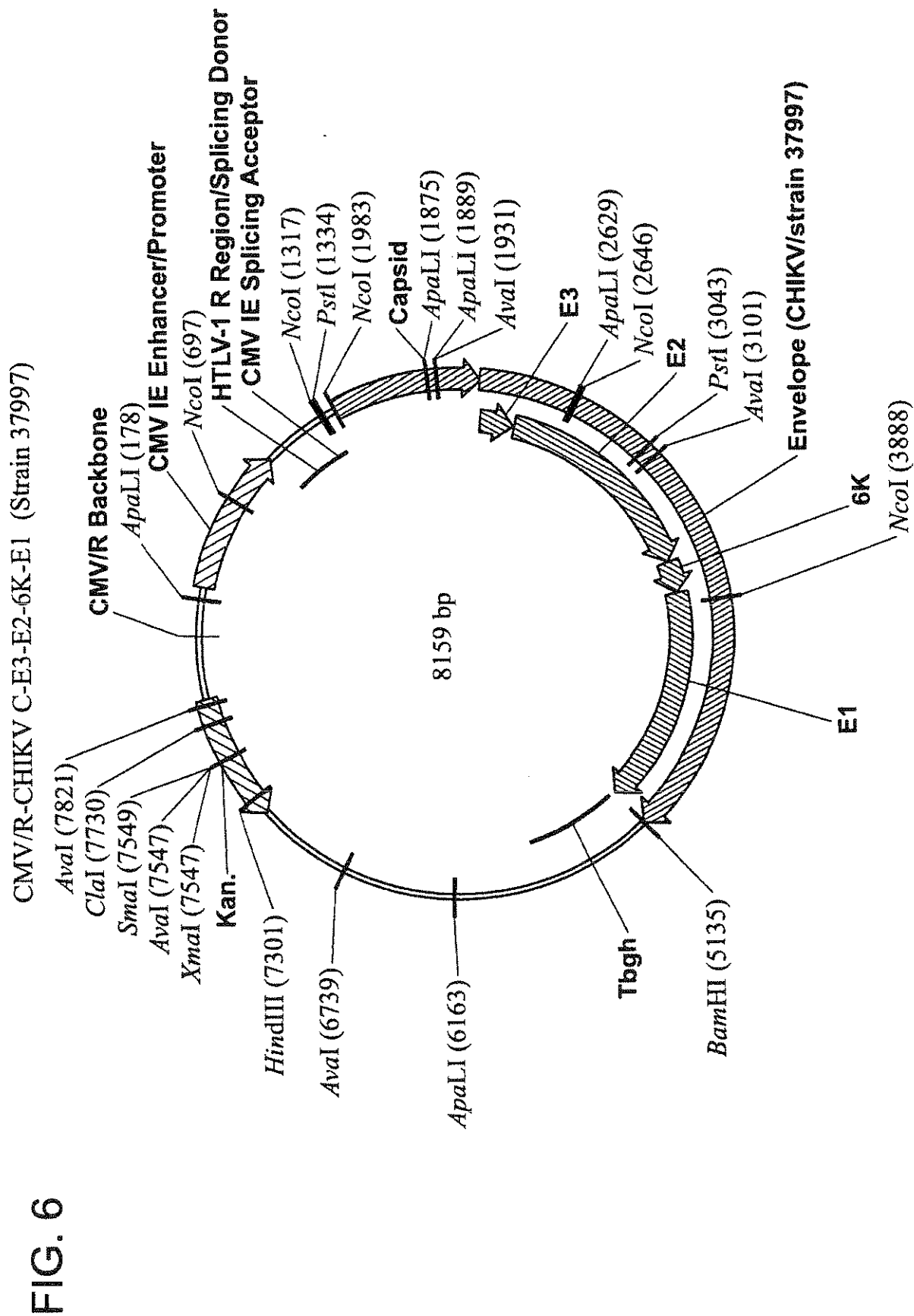


FIG. 5

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SEQ ID NO: 1

Insert C-E3-E2-6K-E1 (strain 37997)

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ccacgttcacagagagggcgtggccaactgccccagctgtatcccgcagtcacacaaattgacctggcgccggtaccctcaacaggaagccctc
gcaggaatcggaacacaggaaggcagagagggcagggcggccgtaaggagaggaattgctacatgaaatgattgctatcttgaaagtcaaggcat
aaagagggccggctccaaaaggaaggaaacccagggccgtaggggagaggaattgctacatgaaatgaaatgaaatgattgctatcttgaaagtcaaggcat
gaaaggcgaaggtagtgggctacggcctgggtgggggtataaagttaaaagtcaaacagcacatgttgaaagggtgaaactatcgacaatggccgcatgtg
gtctaaactggcccttaaggcggtctctaaatagatcttgaaatgtgcacagataccgggtgcacatgaaagtctgtaagctcctcgaaagtftaccacagga
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aggacggcgagaccgtatcttgacaacaaaggagcggggtgggtggccatcgctctagggaggggccaaagaaagggtggcccgccacggggccctct
ccgtgggtgacgttgaaacaaaggacatcgctacaaaattatcccttgaggggggccggaaagggtggggccctcgccctcgggtctgtggccctgtg
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ccgttgatggagcccggtactaccagctactaaaaggcatcgctgactgtctctccacccggccaaaggacccaggtactaaaggacaatttaattgtc
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gaaaggcaacggagcgggaacggctgaaaaalccagggctcttttcagagalcgggtataaaggacagatgacagccacggattgggaacaggctggcgtat
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atcatgaaaccacctgtgatagtgtagggggtgtccactctcgaccacaaacatgggttaaaggaggttacctggcagcagctacgtgcaaggacac
gctggccactgtcgaggagagatagggtgtcatatggcccccagatactctggaccggcagctgtgtagacggcagctggcgaacgttgaaagtatca
cagttaatggggcagcggtggctgtacaaagtgcacatggcggtgtcctcaaacggggagggagctgacaaaccacagcaaaagtgtatcaataaactgca
aaattgatagtggccatgtcgagtcactaatcacagggaattggcaatacaactcccctttatgtcccggccaacggctgaaactggggggaccgta
aaaggaaagatccacatcccatccattgggcaaacgtgacttggcagaggtggcaaaaggcaaggaaacccctacagttaacttgcgaaaaaaacc
aaagtaccatgtgctgtatcttgaccatccgacactgtgttaccgttaacatggggagggaaaccaaatatccacaggaggggtgggtggacac
acaaaggaggggttaccttgaccgttacttgagggtctggagggtcacttgggggcaacaacaggaaaccatacaaggactggccggcagatgtct
acgaacgggtactgtcatgttcaccacatggagataatctgttactattatgggtgttaaccccatgtactgtgtatgtgtcgggtgggtggccctggt
cggtgtctgtcgtatgggtgcacagcagttgggaattgtgtgtgtcgcacggcagatgcattacacattgaattaacaccaggggccac
gtttccctctcgtcagccctgtctatgtcgctcaggaacggaccaaggcggtccacattatcaggaggtcgtcggtgcatatctatgggaacggacagcag

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FIG. 7A (continued)

cccctgtctggtgcaggctcttatcccgctggccgcttgatcgtctgtgaactcttgccaactcttgccaatgctgtgtaagaccctggccttttt
 agccgtaatgagcctgggtgcccacacgtgtgagcgctgacgaacacgttaacagtgatccccgaacacgggtggagtagtaccgtataagagccttgg
 tcaacagaccgggttacagcccccatggtgttgagatggagctacaatcagtcacacctggaaaccaacactgtcacttgactacatcacgtgctg
 agtacaaaactgtcatccccctccccgtacgtgaaagtgtgtgtgtacagcagagtgcaaggacaagagccttaccagactacagctgcaagggt
 ctttactggagtgctaccatttatgtggggcgccctactgtcttttgcgacggccgaaaatacggcaattgagcggagggcacatgtagagaaaatctg
 aatcttgcaaaacagaggtttgcatcggcctacagagccccacacggcgtcggcggaagctccgctgtctttaccaaaggaaacaacatt
 accgtagctgcctacgtaacgggtgacctggcgtcacaagtataaggacggccaaagtgtgtgtggccccaatgtctccggcctgggacacctttg
 acaacaataatcgtgtgtacaaaaggcgacgtctacaacatggactaccacaccttttggcgagggaaagaccaggaacaatttgggtgacattcaa
 agtcgtacacccggaaagtaagacgtttatgtccaaactcagttgtgtactacagagggccagcagcagcagctacatgtaccatactctca
 ggcaaccatctggcttcaagttatggctgaagggaacgagggagcgtcgtacagcacacggcaccgttccggttgcagattggcgaacaaacccg
 gtaaggagctgtaaatggcgtgtggggaacataccaatttccatcgacataccgggagtgcccatcatacaatacacagctagcaaggaaagggtataatgt
 gacatgtcatgcgaagtaccagcctgacactcctccgactttggggcgctgcocatcatacaatacacagctagcaaggaaagggtataatgt
 gcagttacattcgatgaccaacggcgttaccaltcgaaagccgacgtgaagtagagggggaactcccagctgcaaatatccttctcaacagc
 cctggcaagcgcggagtttcgctgcaagtgtctccacacaagttacactgcgcagcccgcatgccaccctccaaaggaccacatagtcgaatt
 acccagcatcacacaccccttgggtgccaggtatatatccacaacggcgaattgtcttgggtgcagaaagattacggggagggtaggtgtaatt
 gttgctgtgtgctgcccttaattgtgtgtgctatgctgtgttagcaggcactaa

FIG. 7B**SEQ ID NO: 2**

CMV/R 37997 C-E3-E2-6K-E1

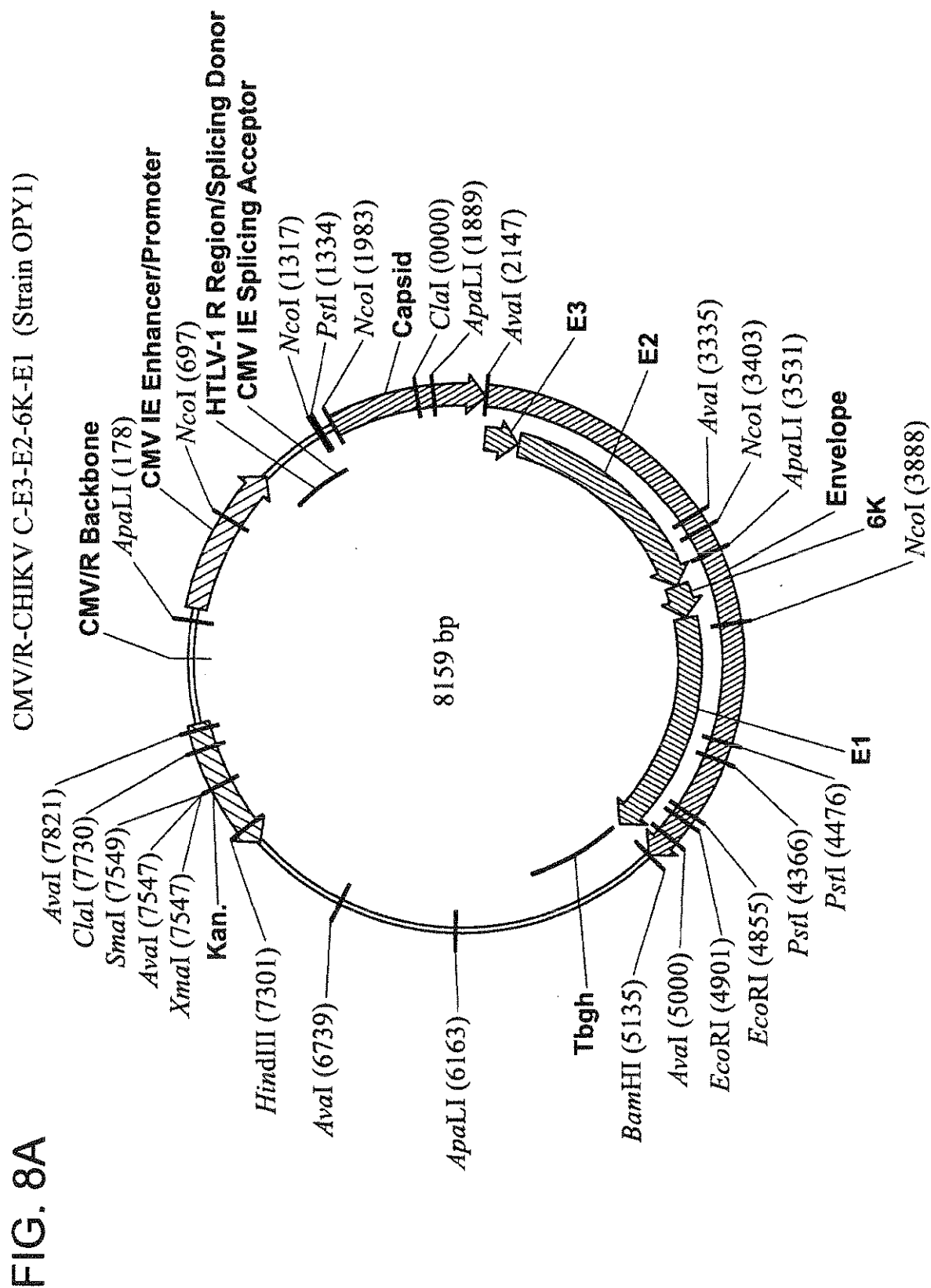
tcgcgcgtttcgggtgatgacgggtgaaaacctctgacacatgcagctccccgggagacgggtcacagcttctgtgaagcggatgccggggagcaga
 caagcccgtcagggcgcgctcagcgggtgttggcgggtgtcggggctggccttaactatgcggcatcagagcagattgtactgagagtgaccca
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 tacatttatattgctcatgtcccaacattaccggccatgttgacattgtattgtactagttattagtaataatcaattacgggggtcatttagttcatagccc
 atatatggaggtccgcgttacataacttacgggttaaatggccccgctggctgaccgcccccaacgacccccccattgacgtcaataatgacgtat

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FIG. 7B (continued)

cccatataaatcagcatccatgttggaaatttaalcgcgccctcgagcaagacgtttcccggttgaatatggctcataacaccccttgattactgtttat
gtaagcagacaggttttattgttcgatgatataattttatcttgtgcaatgtaacatcagagattttgagacacaacggtggtttccccccccccatt
attgaaagcatttatcagggttattgtctcatgagcggatacatatttgaatgtatttagaaaaataaaacaaatagggttcgcgccacatttccccg
aaaagtgccacctgacgtctaagaaccattattatcatgacattaacctataaaaataggcggtatcacggagggccctttcgtc

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FIG. 8B (continued)

accgtcccttctgcttagoctaataatgctgcatcagaacagctaaagcgccacataccaaagagggctgcgatatataccctgttggaacgagcag
 caaccttggtttggctacaaagcccttattccgcctggcagccctgattgttctatgcaactgtctggagactctggagactctgctgtgtaaaacgcttggttt
 tttagccgtaatgagcgtcgggtgcccacactgtgagcgcgtacgaacacgtaaacagtgatcccgaaacacggtggagagtagaccgtataagactct
 agtcaatagacctggctacagcccccaatggattggagatggaactactgtcagtcactttggagccaacacatcgccttgattacatcacgctgcg
 agtacaaaaaccgcatcccgctccgtacgtgaagtgtcgggtacagcagagtgcaaggaacaaaaacctacacctgactacagctgtaaggtc
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 cggacatgtctgcgagggtaccagcctgcacccattctcagactttggggcgctgcattattaaatagcagccagcaagaaaggcaaggt
 gtgcgggtgcattcgtactaaagccgctcactattcgggaagctgagatagaagtgaagggaattctcagctgcaaatctcttctcagcgcc
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 cccggcggtcacataccaccctcgggggtccagagacatctccgctacggcgatgctcatgggtgcagaaagatcacggggaggtgtgggactgggtg
 ttgctgttggccgcactgattctaactgtgggtgctatgcgtgtcgttcagcaggcac

FIG. 8C

SEQ ID NO: 4

CMV/R C-E3-E2-6K-E1 strain OPY-1

tcgcgcgttctggtgatgacgggtgaaaaccttgacacatgcagctccgggagacggtcacagcttgtctgtaagcggatgcccgggagcaga
 caagcccgtcaggcgcgctcagcgggtgtggcggtgtcggggctgggttaactatgcggcattcagagcagattgtacttgagaggtgaccaca
 tatcggtgtgtaataaccgcacagatgctgtaaggagaaaataccggcaticagattggctattggccattgcatagctgttatccatataatag
 tacatttataggctcatgtccaacattaccgccatgttgacattgatttagctagtatttaataagtaataacgggggtcattagttcatagccc
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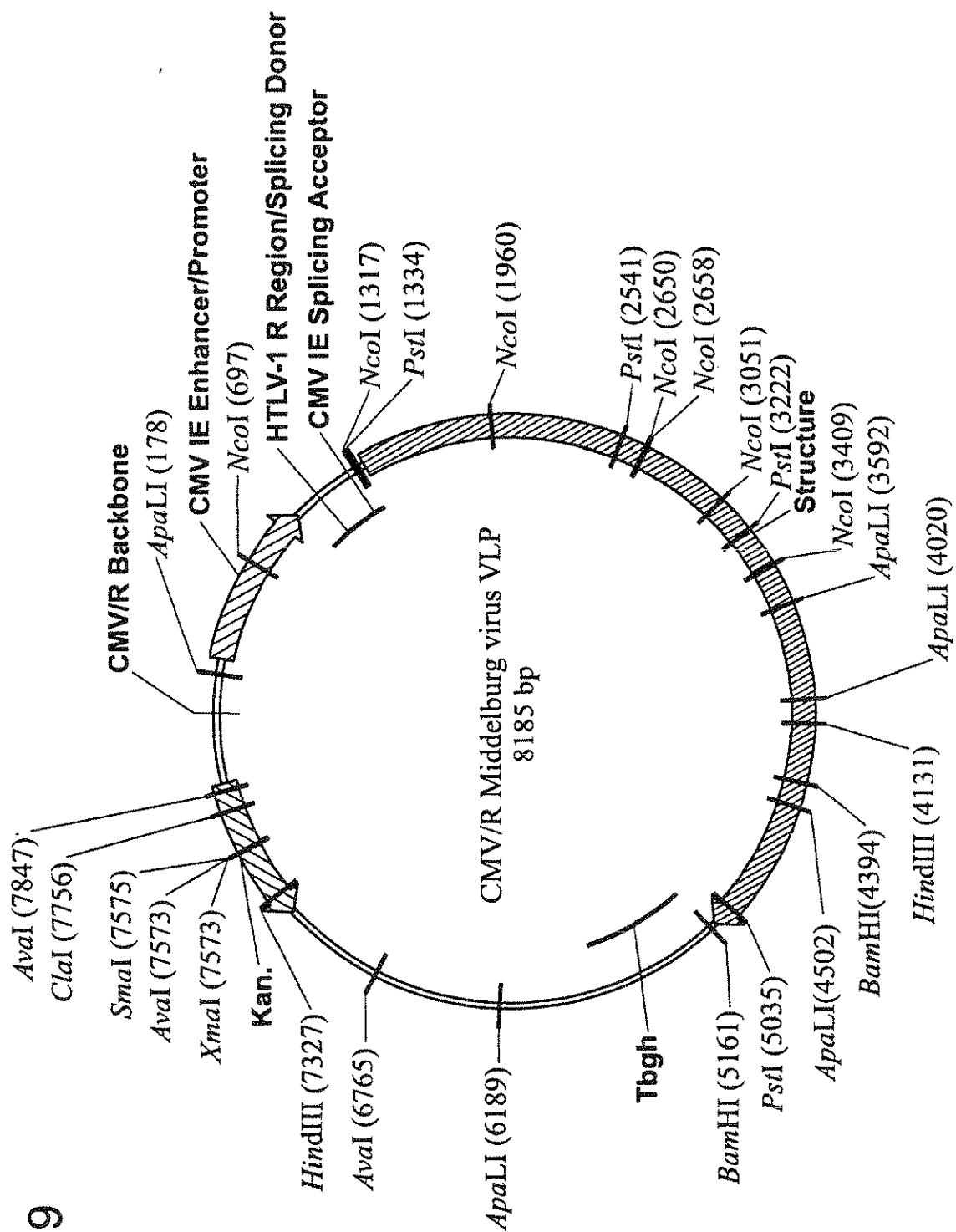
[illegible]

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FIG. 8C (continued)

cccatataaatcagcalccatgttggaaattaatcgcggccctcgagcaagacgtttcccggttgaatatggctcataacaccccttgattactgtttat
gtaagcagacagttttattgttcattgatgatatattttatcttgtgcaatgtaacatcagagatttggacacaaacgtggctttccccccccccatt
attgaagcatttatcagggttattgtctcatgagcggatacatatttgaatgtatttagaaaaataaacaataagggttccgcgcacatttcccccg
aaaagtgcacctgacgtctaaagaaaccattattatcatgacattaaacataaaatagggcggtatcacgaggccctttcgtc

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SEQ ID NO: 5

[illegible]

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FIG. 9 (continued)

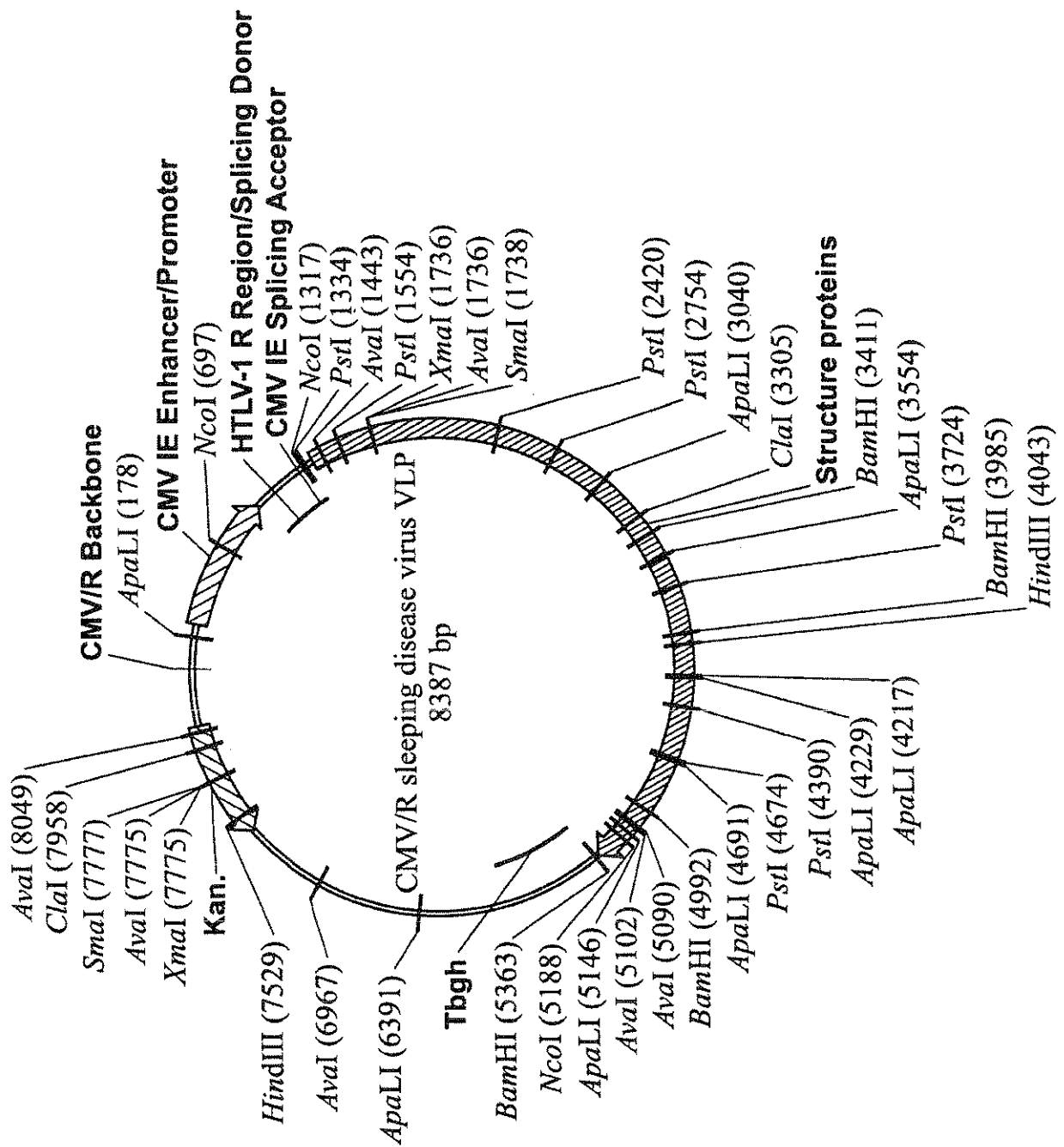
[illegible]

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FIG. 9 (continued)

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ctgtttaaaggacaattacaacagggaatcgaatgcaaccggcgcaggaaacactgccagcgcacatcaacaataattttcaccctggaatcag
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FIG. 10 (continued)

SEQ ID NO: 6

tcgcgcgtttcgggtgatgacgggtgaaaacctgacacatgcagctccgggagcgggtcacagctgtctgtaaggcggatgccgggga
 gacagacaaagcccgctcagggcgcgtcagcgggtgttggcgggtgtcggggcgtggccttaacctatgctggcatcagagcagattgtactg
 agagtgccaccatagcgggtgtgaaataccgcacagatgcgtaaaggagaaaataccgcatacagattggcctattggccattgcatacgttg
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 ctggccacttggcaggtacalcaaggtgtatcatatggccaagtacgccccctattgacgtcaatgacggtaaatggccccggcctggcattatg
 cccagttacatgaccttatgggactttcctacttggcaggtacatcatgattatgctatccatgggttatgacgggttttggcaggtaca
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 agaaaaggggagcggcgggtgaaaaagcccaagaaagccgcggaaaccggcccgaggaaaggaggtaaagggtatctccgtaaaagcgtgccccg
 acagagcaccctccccgtgtaccatgacgggtgcccatactccggctatgctgggtgctgattggctcccgctggttttaaggccagcgcacgtga
 aggggttaagttcgaccaccccgaactggcggacatcaagttccaggtcgcgcgaaggtcgtcatggacccctgaagcagcccgcataccctaaag
 tgcagtcgagacagggcgtgaaaccagcaaacatggatggagtgtaacatgggggaggtacgggcaatatctacggaggtggagggac
 aattttgtattcgtatgacggcggcagagcaagcccggtgggtgacagtgtagcggccatccaccgacaactcagggaaaggtgtgtgggtat
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 acagcggagggccatcccttggacacggcgacacagctctcctgctgctcctatgggtatcgcctggcacctacaactcaataacctttgatt
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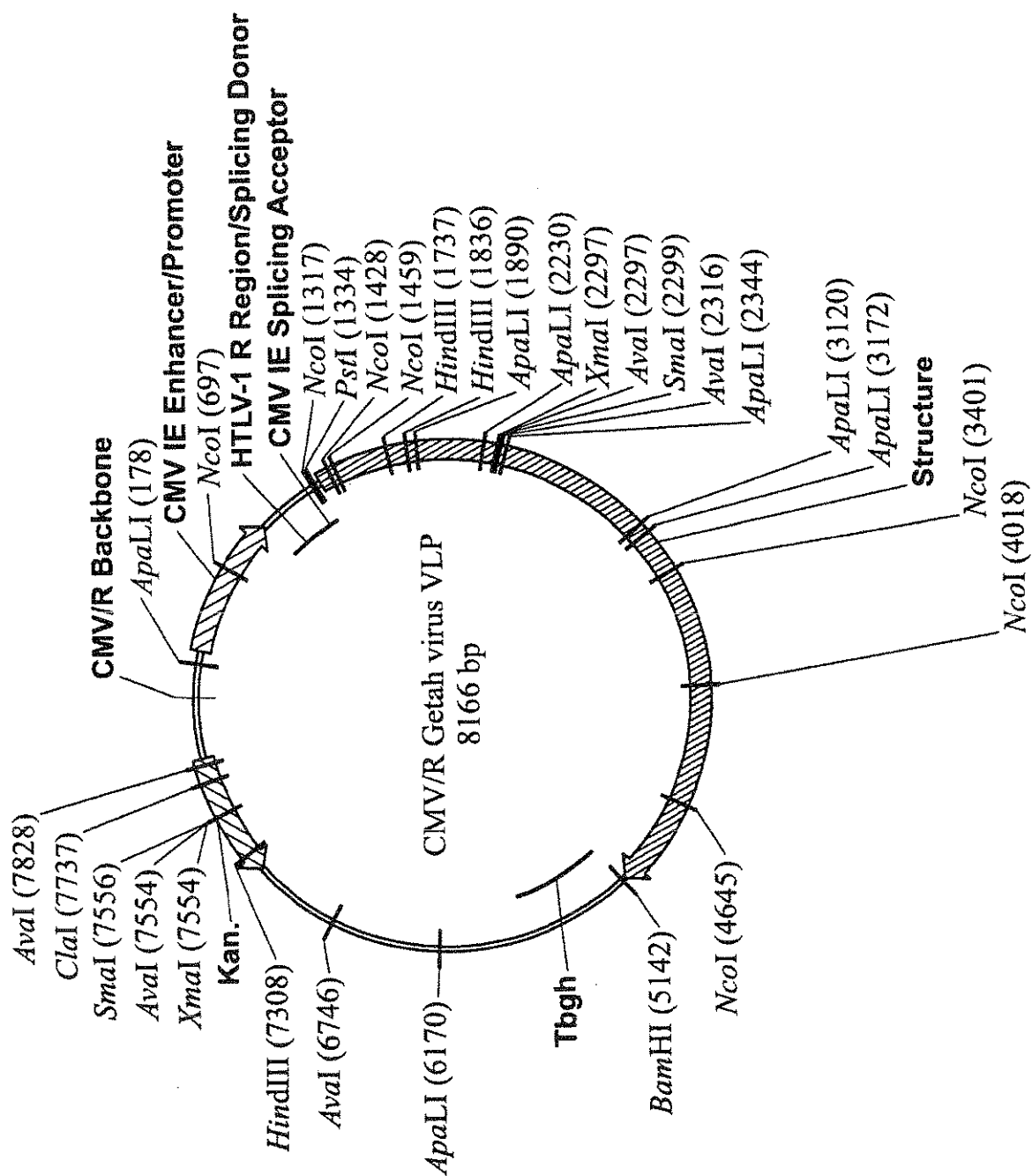
[illegible]

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FIG. 10 (continued)

atggcaaaagccttatgcattttcttcagacttggtcaacaggccagccattacgctcgtcatcaaaatcactcgcataccaacaaaccggtta
ttcattcgtgattgcgcctgagcgaataacgcgacgtgctgttaaaaggacaattacaacacagggaatcgaatgcaacccggcggca
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acattaacctataaaaataggcgtatcacgaggcccttctgc

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FIG. 11 (continued)

SEQ ID NO: 7

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FIG. 11 (continued)

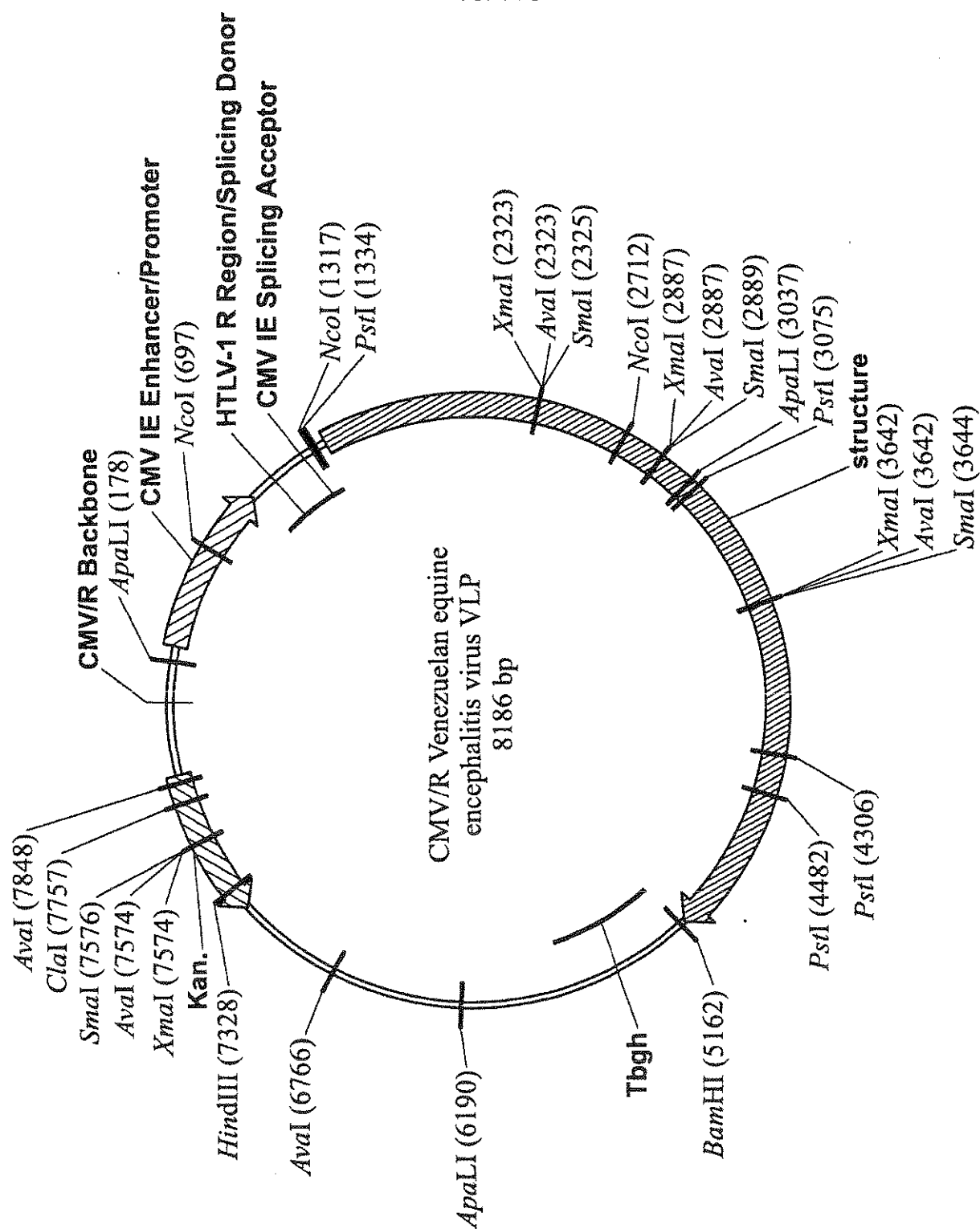
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FIG. 11 (continued)

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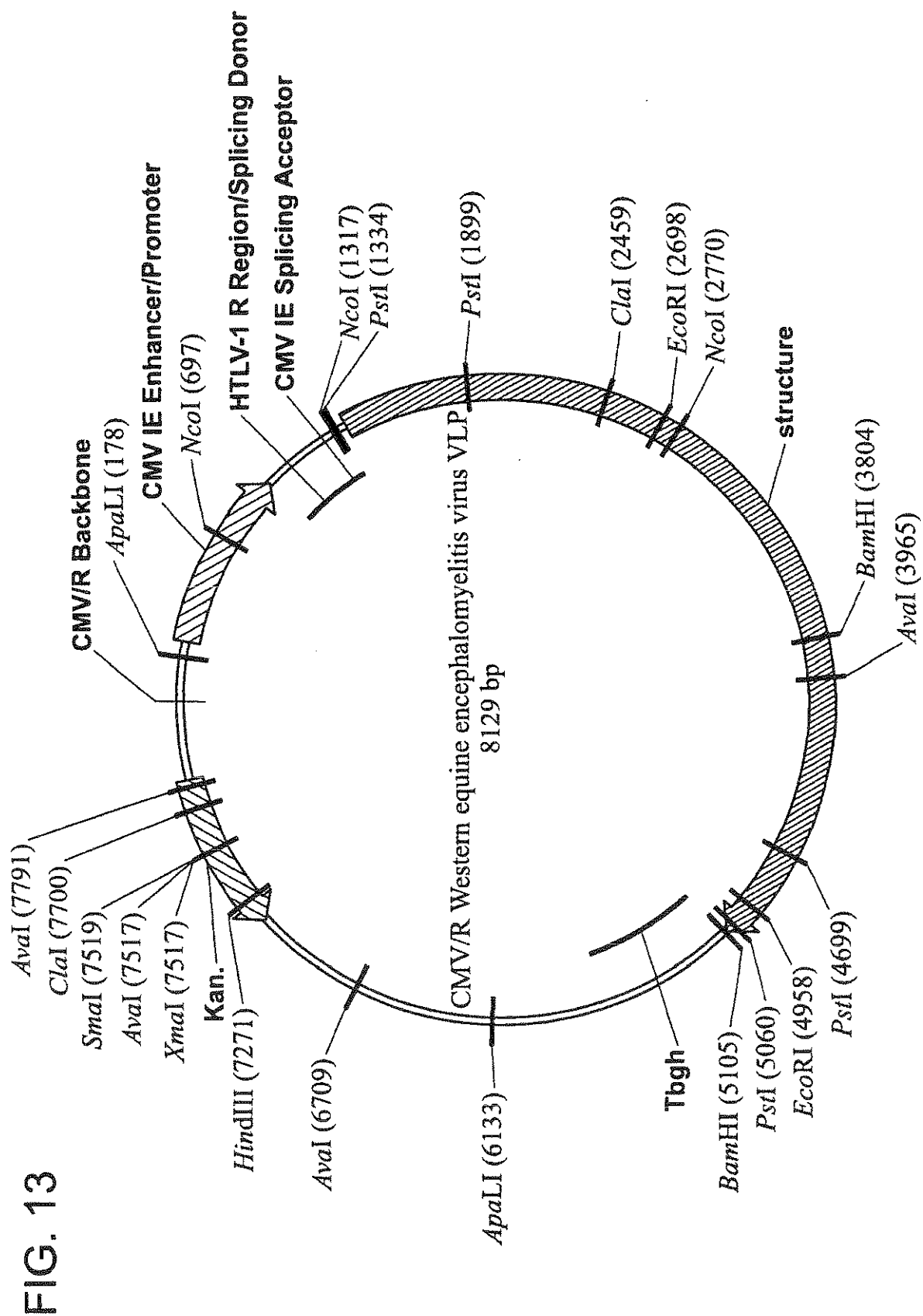
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FIG. 12 (continued)

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FIG. 13 (continued)

SEQ ID NO: 9

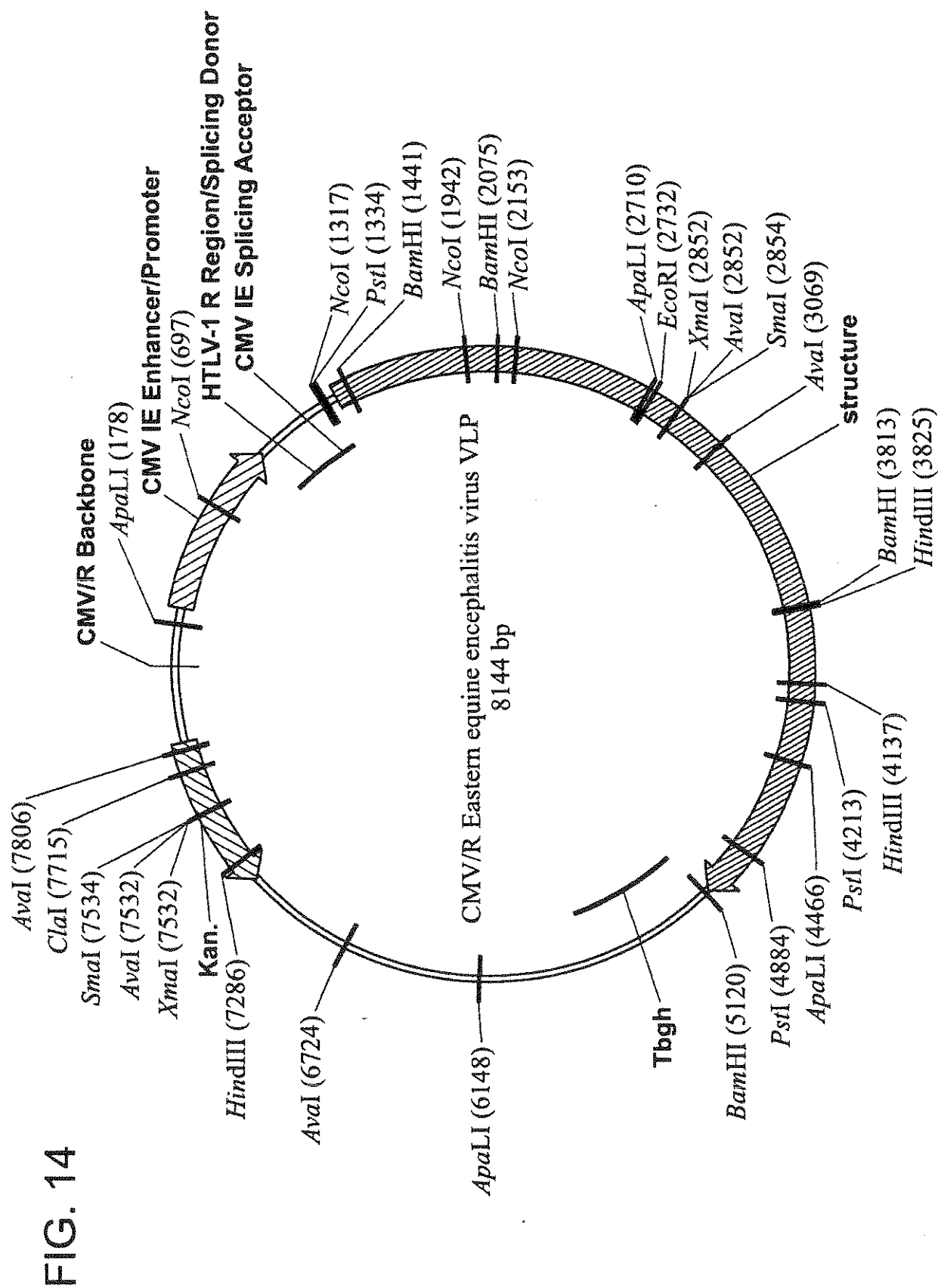
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FIG. 13 (continued)

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SEQ ID NO: 10

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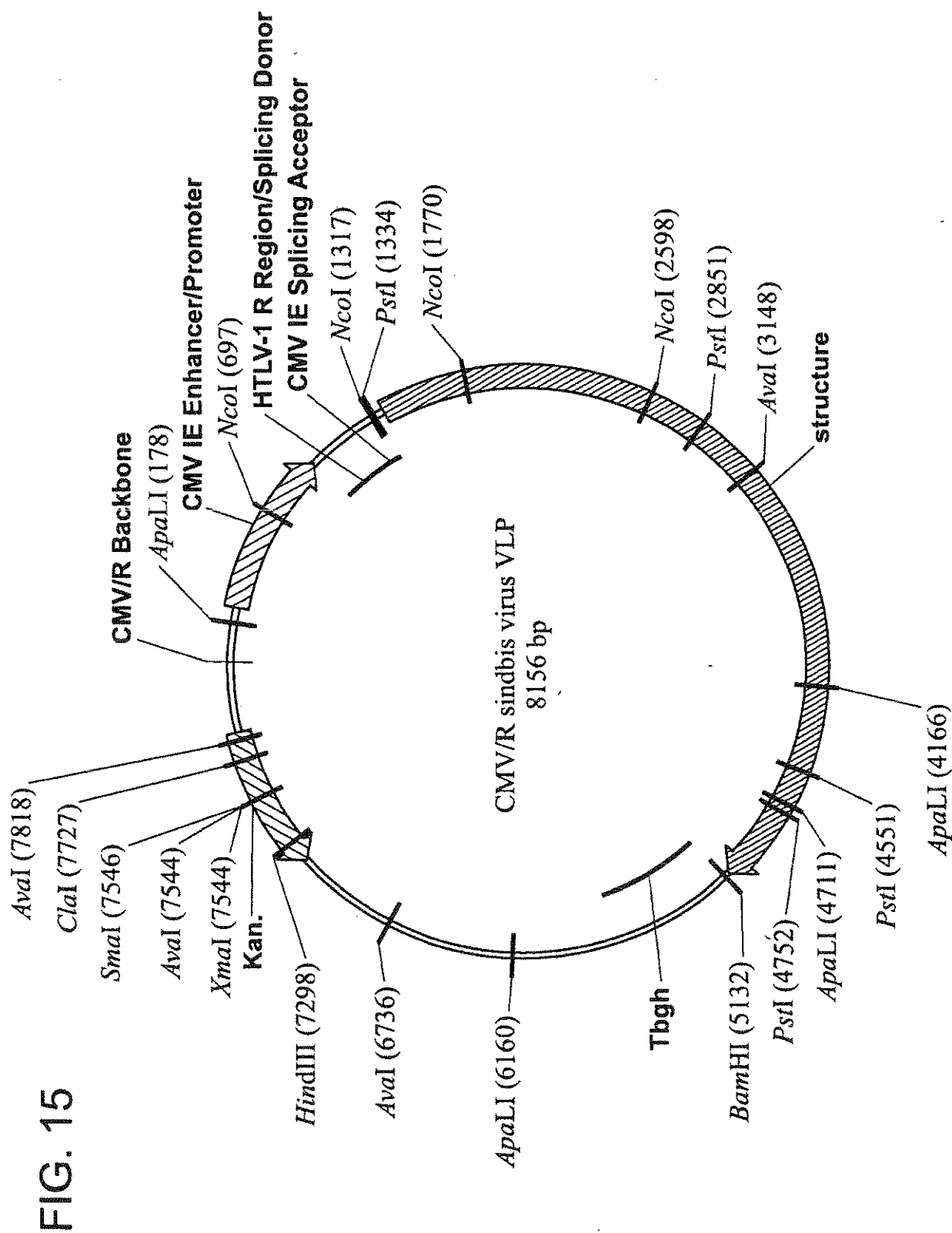
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FIG. 14 (continued)

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SEQ ID NO: 11

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FIG. 15 (continued)

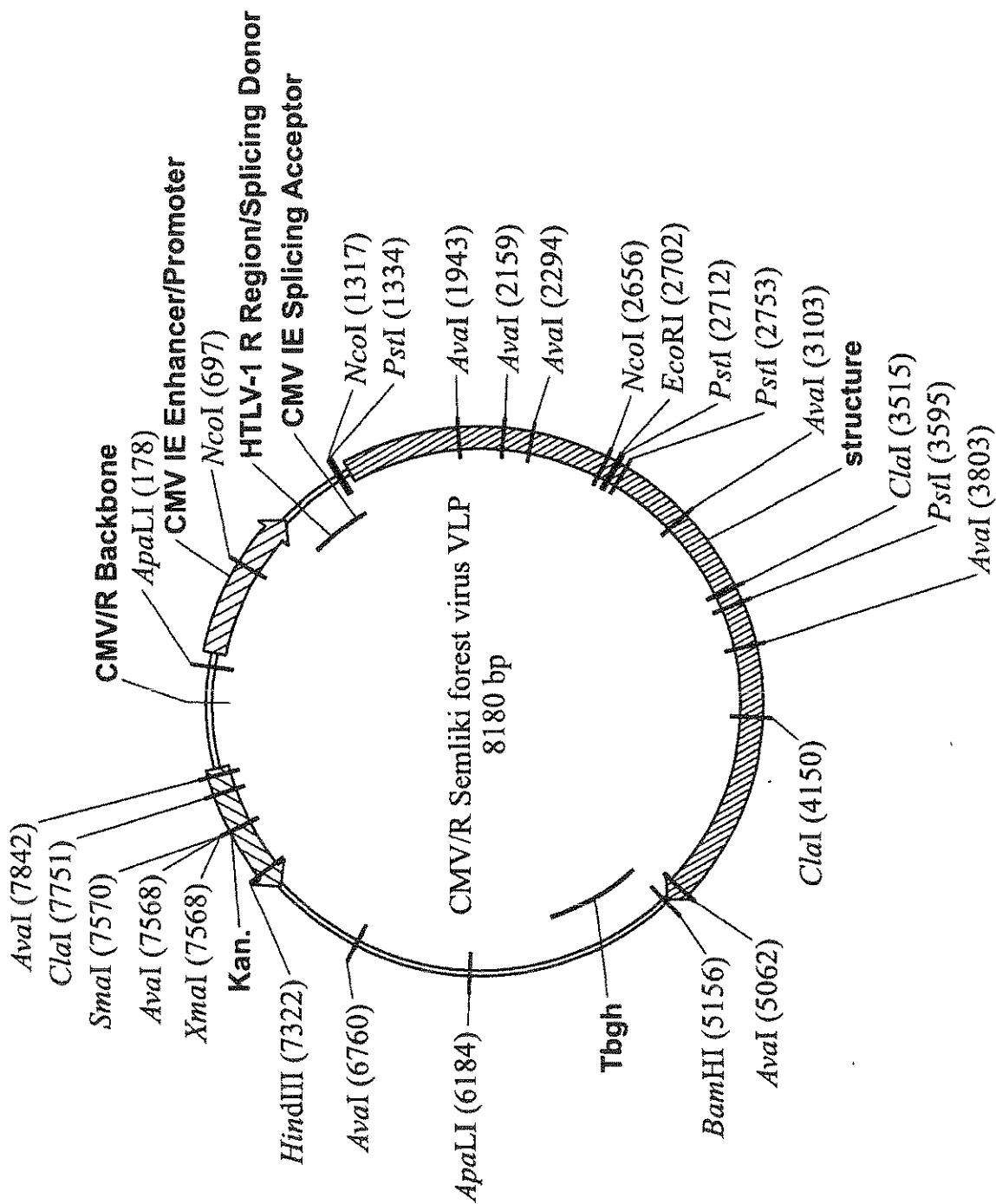
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FIG. 15 (continued)

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FIG. 16 (continued)

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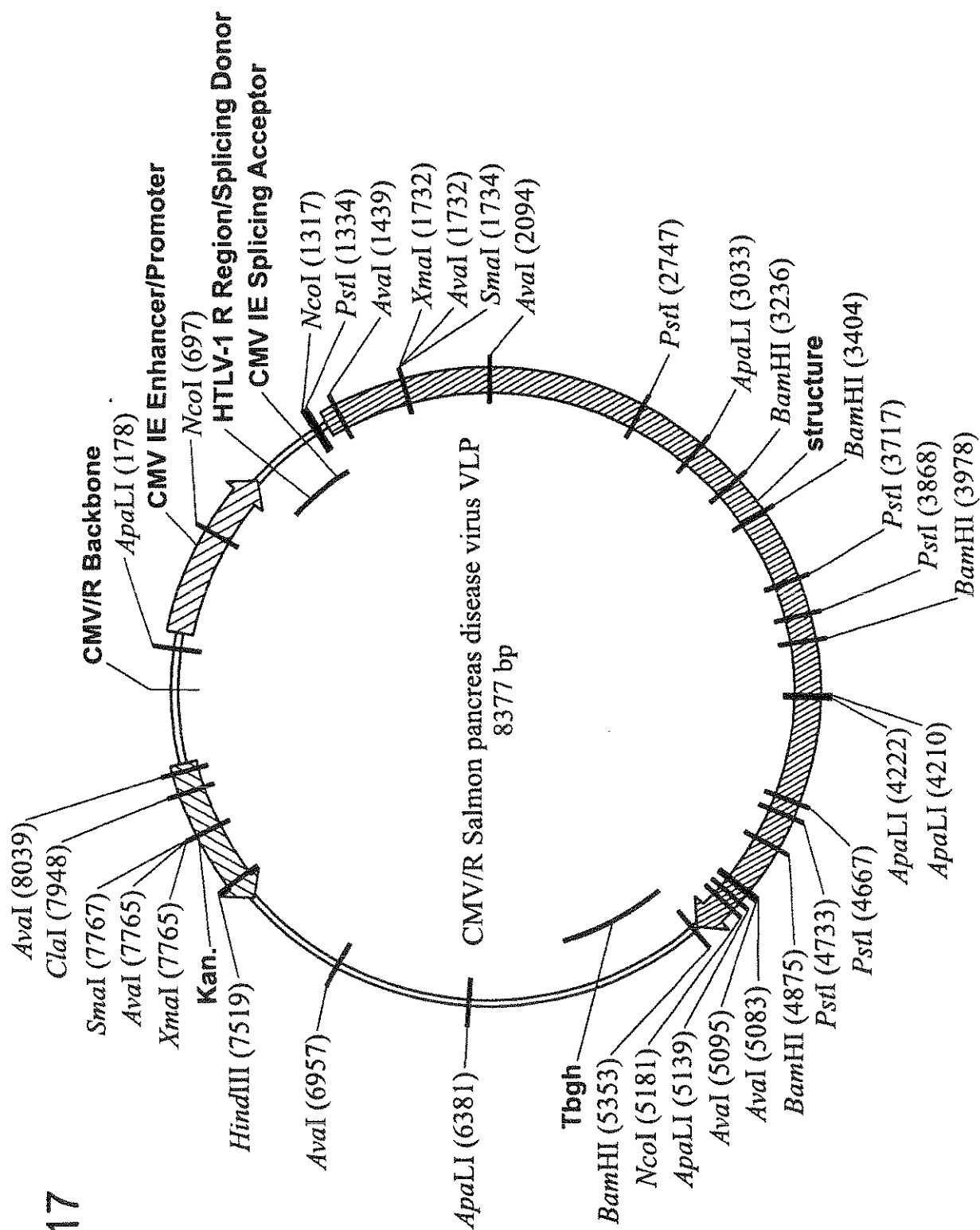
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FIG. 16 (continued)

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SEQ ID NO: 13

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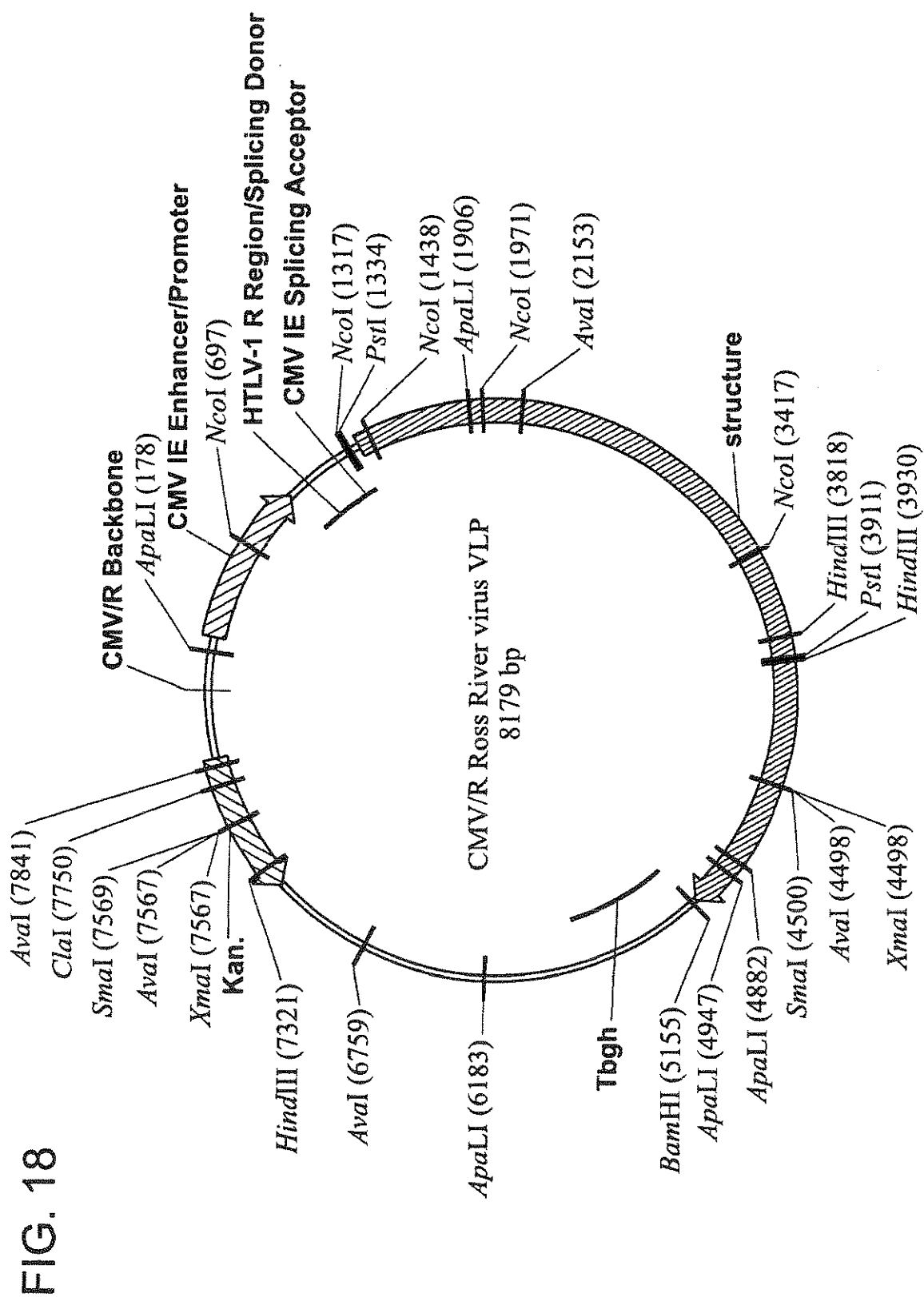
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FIG. 17 (continued)

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FIG. 18 (continued)

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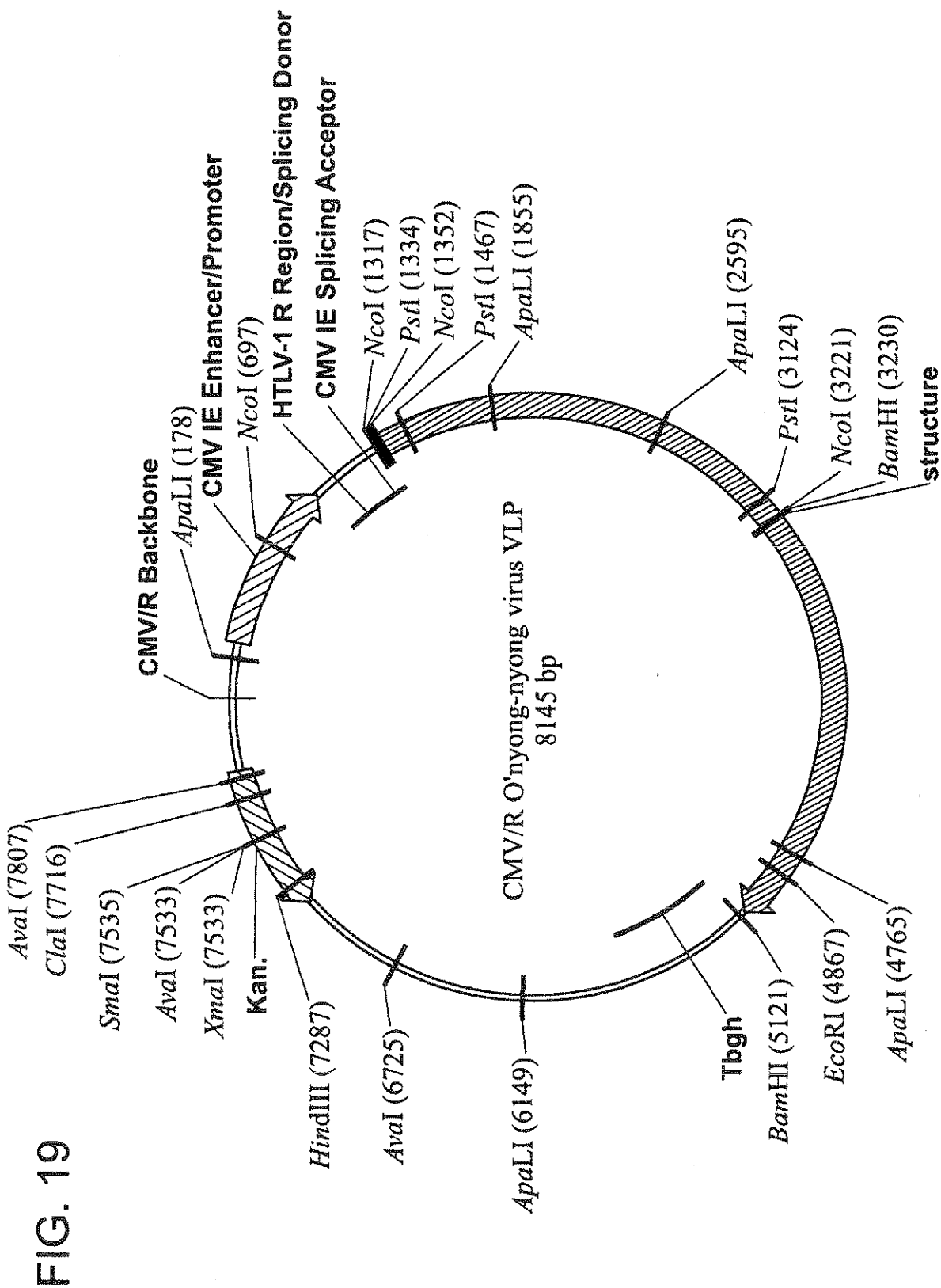
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FIG. 18 (continued)

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SEQ ID NO: 15

[illegible]

FIG. 19 (continued)

[illegible]

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FIG. 19 (continued)

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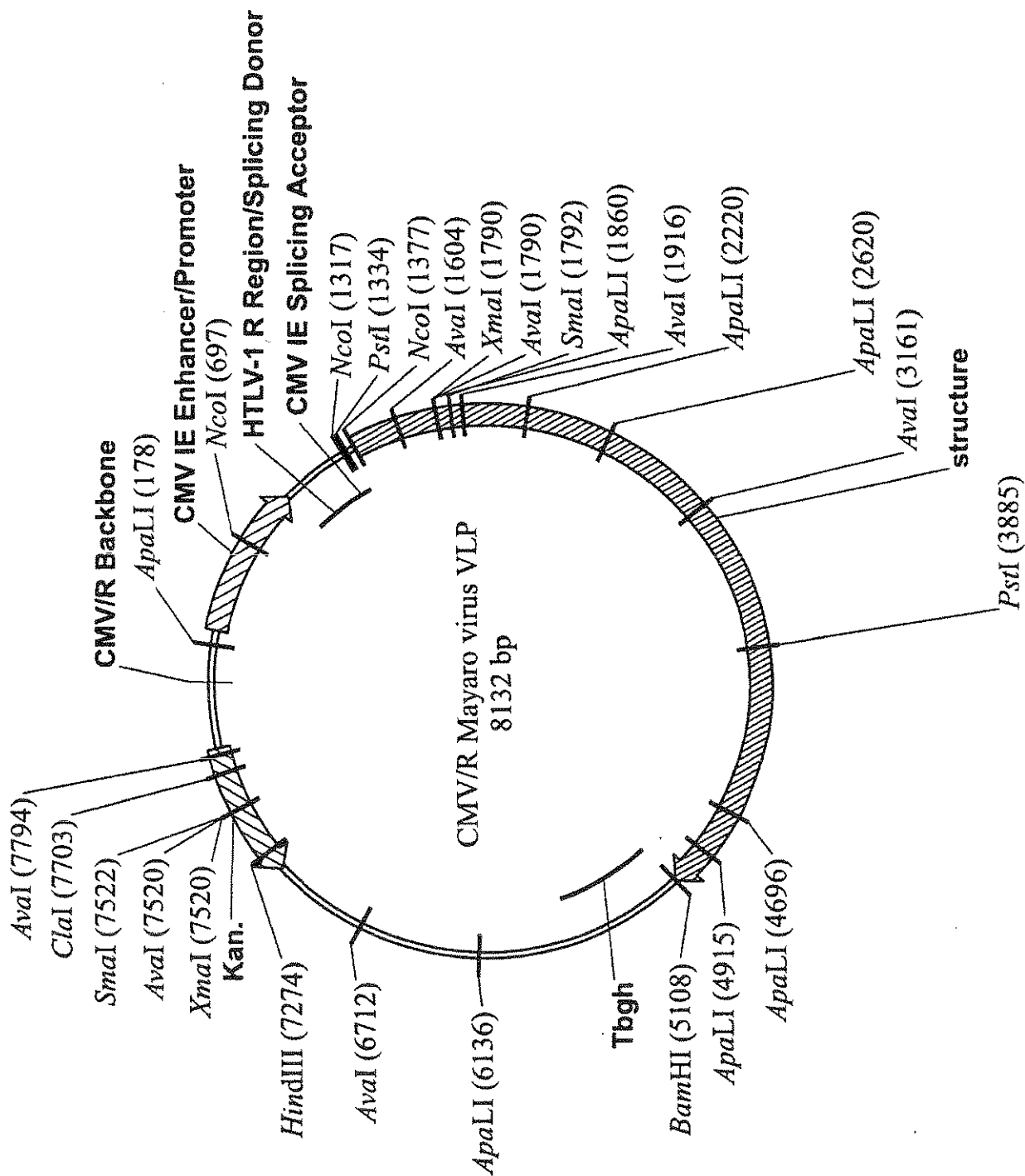


FIG. 20 (continued)

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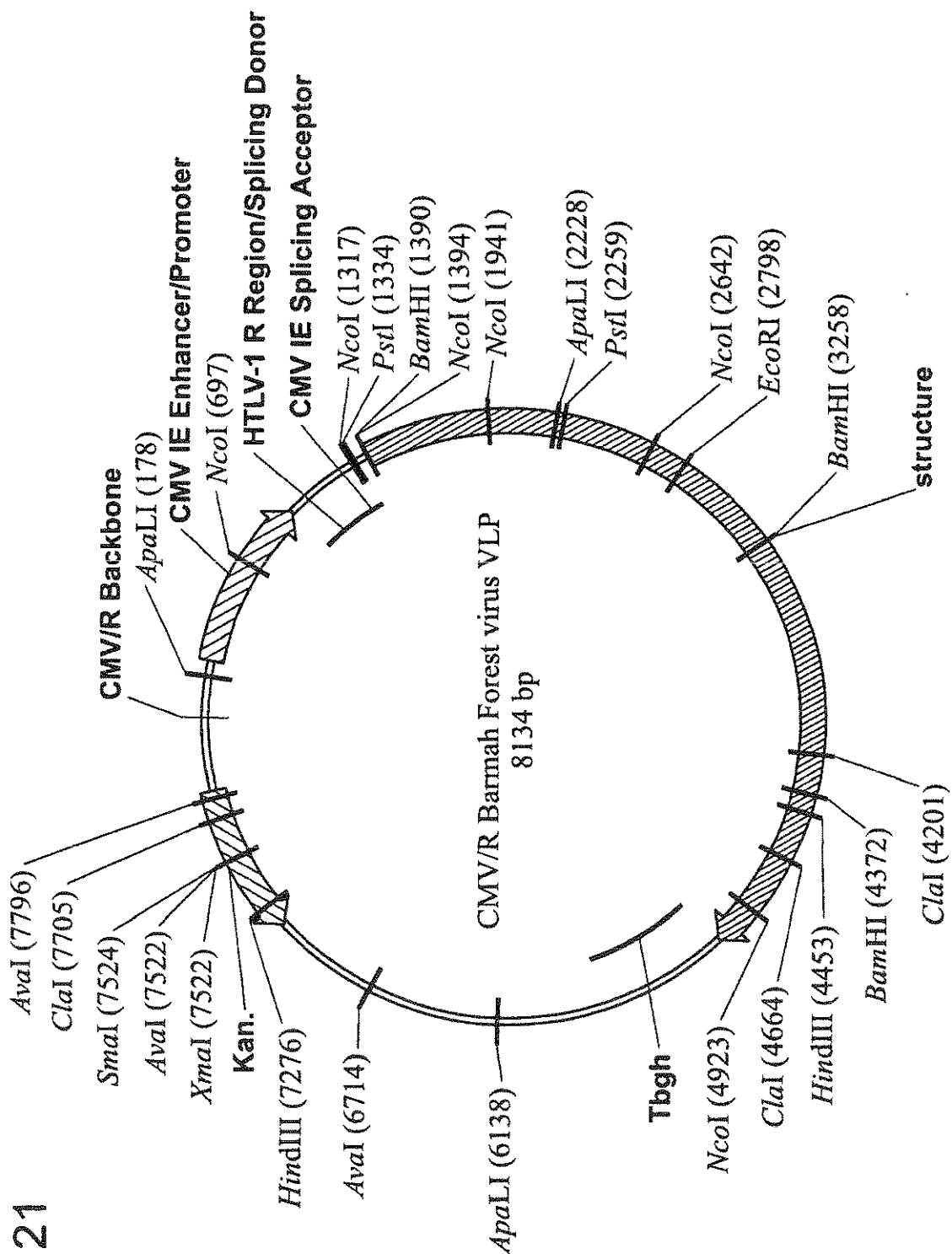
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FIG. 20 (continued)

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FIG. 21 (continued)

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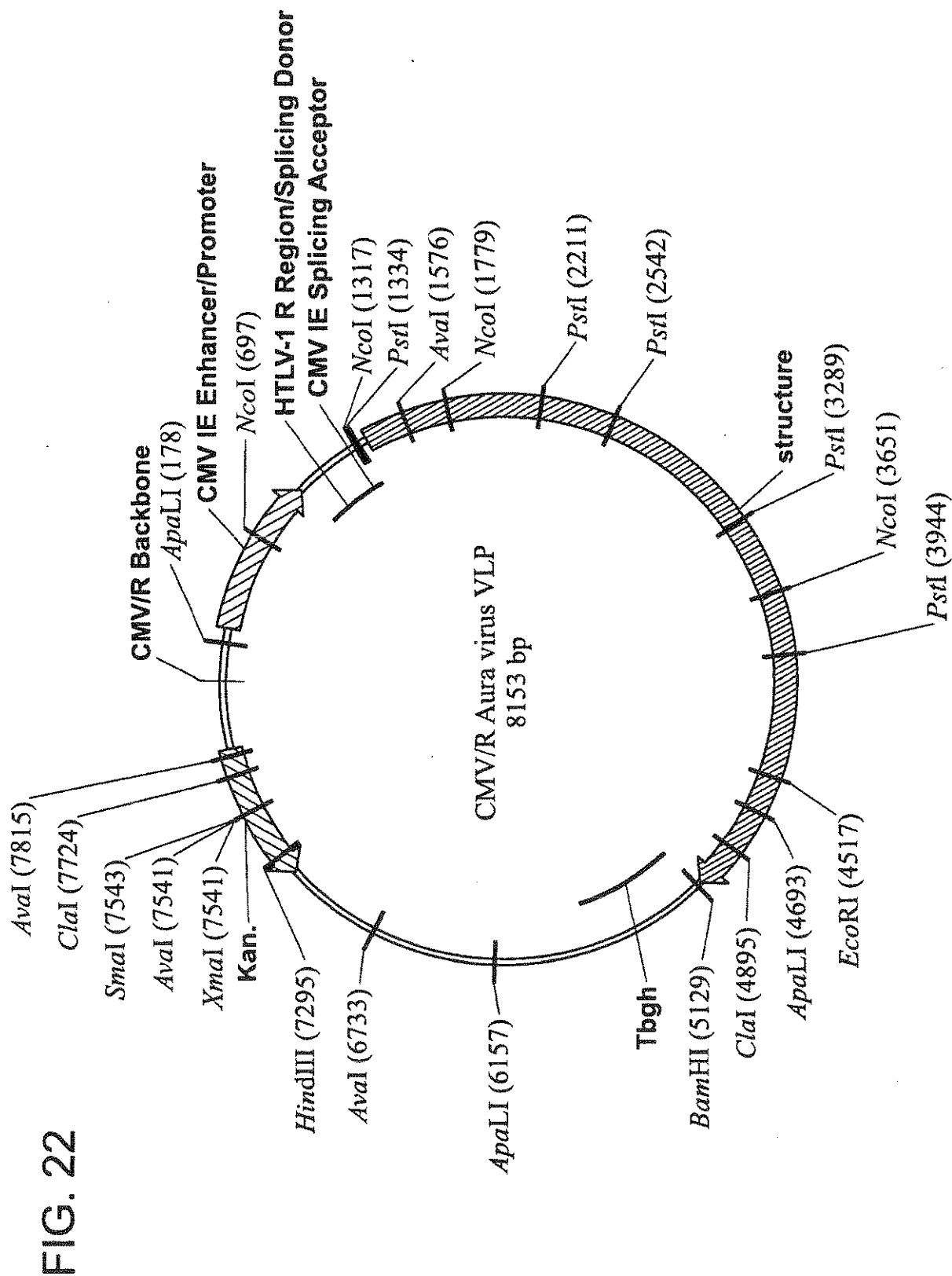
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FIG. 21 (continued)

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FIG. 22 (continued)

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FIG. 22 (continued)

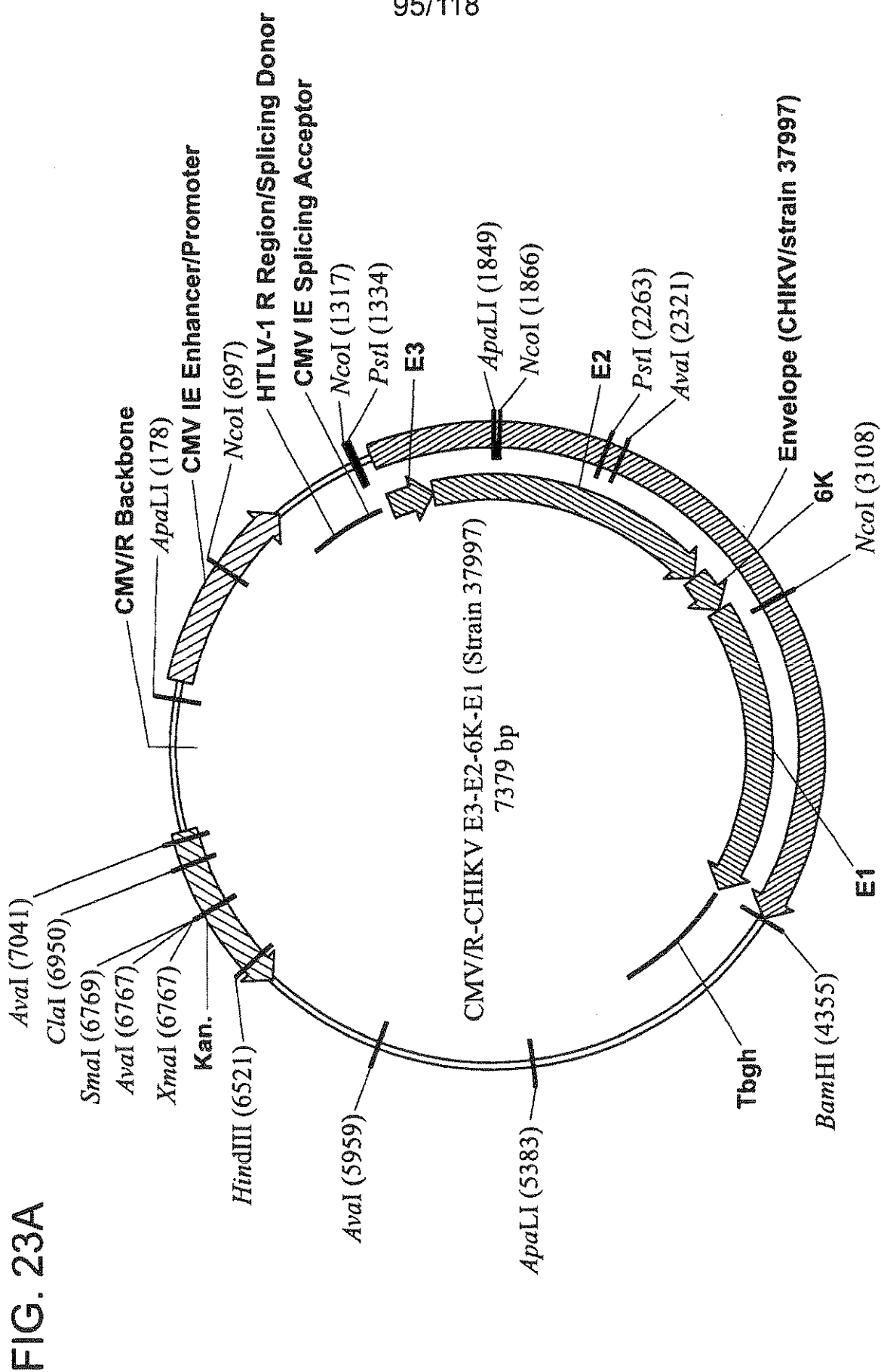
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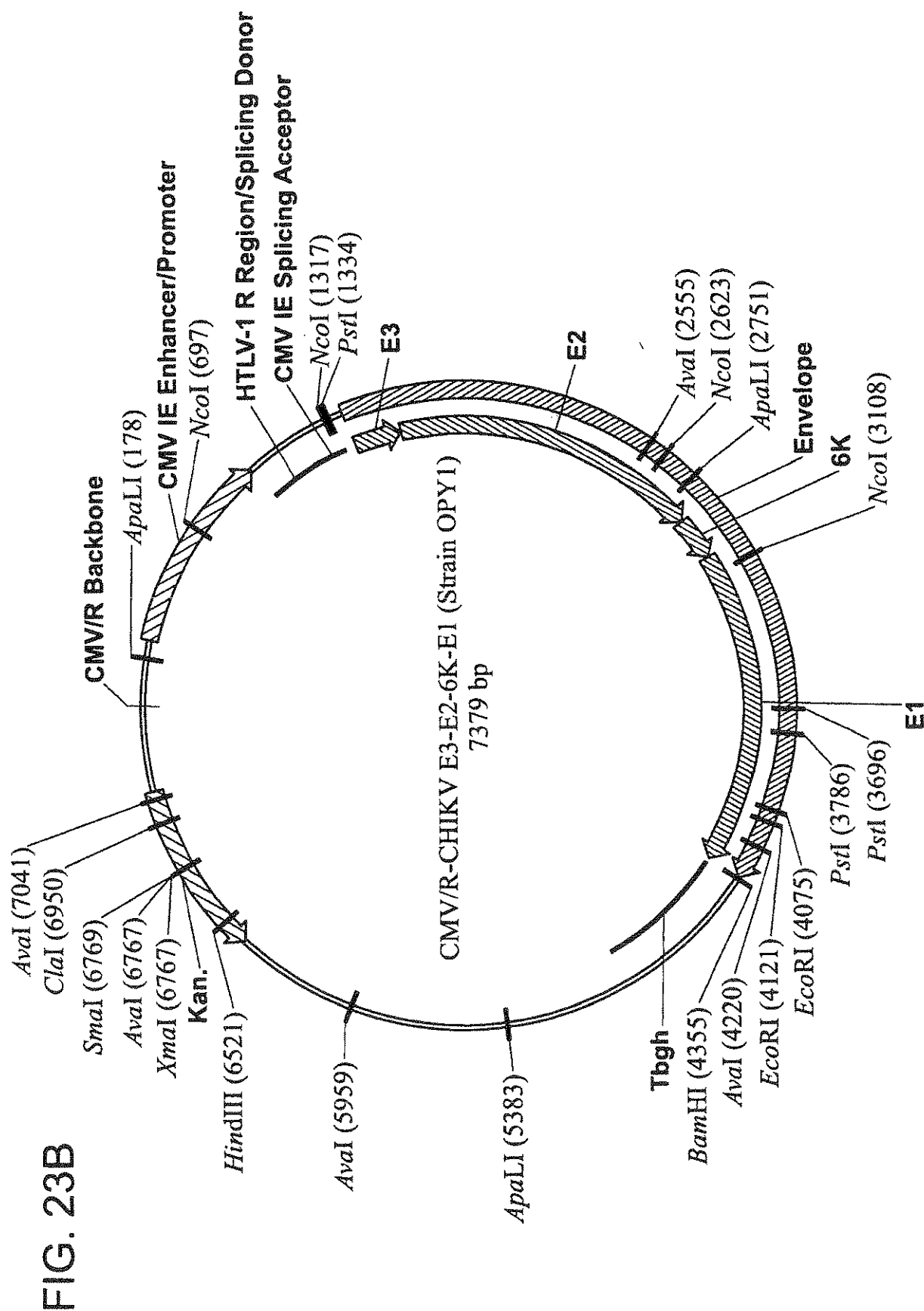
FIG. 22 (continued)

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SEQ ID NO: 21

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FIG. 23B (continued)

SEQ ID NO: 22

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FIG. 24

Seq ID NO: 23

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1  atggctgcgt      gagacacag      tagcctacca      gtttcttact      gcttactct      gcaaagcaag
61  agattaataa      ccatcatgg      atcctgtgta      cgtggacata      gacgctgaca      gcgcctttt
121  gaaggccctg      caacgtgcgt      acccatgtt      tgaggtggaa      ccaaggcagg      tcacaccgaa
181  tgaccatgct      aatgctagag      cgttctcgca      tctagctata      aaactaatag      agcaggaaat
241  tgaccccgac      tcaaccatcc      tggatatcgg      cagtgcgcca      gcaaggagga      tgatgtcga
301  caggaagtac      cactgcgtct      gccgatgcg      cagtgcggaa      gatcccgaga      gactcgccaa
361  ttatgcgaga      aagtagcat      ctgccgcagg      aaaagtcctg      gacagaaaca      tctctggaaa
421  gatcggggac      ttacaagcag      taatggccgt      gccagacag      gagacgcaa      cattctgctt
481  acacacagac      gtctcatgta      gacagagagc      agacgtcgt      atataccaag      acgtctatgc
541  tgtacacgca      ccacgtcgc      tataccacca      ggcgattaaa      ggggtccgag      tggcgtactg
601  ggttgggttc      gacacaacc      cgttcatgta      caatgccatg      gcgggtgcct      accctcata
661  ctcgacaaac      tgggcagatg      agcaggtact      gaaggctaag      aacataggat      tatgttcaac
721  agacctgacg      gaaggtagac      gaggaagtt      gtctattatg      agagggaaaa      agctaaaaac
781  gtgcgaccgt      gtgctgttct      cagtagggtc      aacgctctac      cggaaaagcc      gcaagctact
841  taagagctgg      cacctgccat      cggtgttcca      tttaaaggcg      aaactcagct      tcacatgccg
901  ctgtgataca      gtggtttcgt      gtgagggcta      cgtcgttaag      agaataacga      tgagcccagg
961  cctttatgga      aaaaccacag      ggtatgcggt      aaccacac      gcagacggat      tcctgatgtg
1021  caagactacc      gacacggttg      acggcgaaag      aatgtcattc      tcggtgtgca      catacgtgcc
1081  ggcgaccatt      tgtatcaaa      tgaccggcat      ccttgctaca      gaagtcacgc      cggaggatgc
1141  acagaagctg      ttggtggggc      tgaaccagag      aatagtggtt      aacggcagaa      cgcaacggaa
1201  tacgaacacc      atgaaaatt      atctgcttc      cgtggtcgc      caagcctca      gtaagtgggc
1261  aaaggagtgc      cggaaagaca      tggaagatga      aaaactcctg      ggggtcagag      aaagaacact
1321  gacctgctgc      tgtctatggg      cattcaagaa      gcagaaaaaca      cacacggtct      acaagaggcc
1381  tgatacccag      tcaattcaga      aggttcaggc      cgagtttgac      agctttgtgg      taccgagtct
1441  gtggtcgtcc      gggttgtcaa      tccctttgag      gactagaatc      aaatggttgt      taagcaaggt
1501  gccaaaaacc      gacctgatcc      catcacgcg      agacgcccga      gaagcccg      acgcagaaa
1561  agaagcagag      gaagaacgag      aagcagaact      gactcgcgaa      gccctaccac      ctctacaggc

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FIG. 24 (continued)

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1621 agcacaggaa gatgttcagg tcgaaatcga cgtggaacag cttgaggaca gagcgggcgc
1681 aggaataata gagactccga gagagctat caaagttact gcccaaccaa cagaccacgt
1741 cgtgggagag tacctgggtac tctcccgcga gaccgtacta ctagccaga agctcagtct
1801 gattcacgct ttggcggagc aagtgaagac gtgcacgcac aacggacgag cagggaggta
1861 tgcggtcga gctacgacg gccgagtcct agtgcctca ggctatgcaa tctcgcctga
1921 agacttccag agtctaagcg aaagcgcaac gatggtgtat aacgaaagag agttcgtaaa
1981 cagaaagcta caccatatgg cgatgcacgg accagccctg aacaccgacg aagagtcgta
2041 tgagctggtg agggcagaga ggacagaaca cgagtacgtc tacgacgtgg atcagagaaag
2101 atgctgtaag aaggaaagag ccgcaggact ggtactggtg ggcgacttga ctaatccgcc
2161 ctaccacgaa ttcgcatatg aagggtctaaa aatccgccct gcctgcccac acaaaattgc
2221 agtcatagga gtcttcggag taccgggac tggcaagtca gctattatca agaaccctagt
2281 taccaggcag gacctggtga ctagcggaaa gaaagaaaac tgccaagaaa tcaccaccga
2341 cgtgatgaga cagagaggtc tagagatata tgcacgtacg gttgactcgc tgctcttgaa
2401 tggatgcaac agaccagtcg acgtgttgta cgtagacgag gcgtttgcgt gccactctgg
2461 aacgctactt gctttgatcg ccttgggtgag accaaggcag aaagtgttac tttgtggtga
2521 ccggaagcag tgcggcttct tcaatatgat gcagatgaaa gtcaactata atcacacat
2581 ctgcacccaa gtgtaccaca aaagtatctc caggcgtgt acactgcctg tgaccgccat
2641 tgtgtcatcg ttgcattacg aaggcaaaat gcgcactacg aatgagtaca acaagccgat
2701 tgtagtggac actacaggct caacaaaacc tgaccctgga gacctcgtgt taacgtgctt
2761 cagaggggtgg gttaaaacac tgcaaatgga ctatcgtgga tacgaggtca tgacagcagc
2821 cgcaccccaa gggttaacca gaaaaggagt ttacgcagtt agacaaaaag ttaatgaaaa
2881 cccgctctat gcatcaacgt cagagcacgt caacgtactc ctaacgcgt cggaaaggtaa
2941 actggtatgg aagacacttt ccggcgacct gtggataaag acgctgcaga accaccgaa
3001 aggaaacttc aaagcaacta ttaaggagtg ggaggtggag catgcatcaa taatggcggg
3061 catctgcagt caccaaatga ccttcgatac attocaaaaa aaagccaacg tttgttgggc
3121 taagagcttg gtccctatcc tcgaaaacagc ggggataaaa ctaaatgata ggcagtggtc
3181 tcagataatt caagccttca aagaagacaa agcatactca cctgaagtag ccctgaatga
3241 aatatgtacg cgcattgtat ggggtggatct agacagcggg ctattttcta aaccgttggg
3301 gtctgtgtat tacgcggata accactggga taataggcct ggagggaaaa tgttcggatt

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FIG. 24 (continued)

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3361 taaccccgag gcagcatcca ttctagaaaag aaagtatcca ttcaaaaag ggaagtggaa
3421 catcaacaag cagatctgcg tgactaccag gaggatagaa gactttaacc ctaccaccaa
3481 catcataccg gccaacagga gactaccaca gactattagtg gccgaacacc gccagtaaa
3541 aggggaaaga atggaatggc tggttaacaa gataaacggc caccacgtgc tcctgggtcag
3601 tggctataac cttgcactgc ctactaagag agtcacttgg gtagcgcctg taggtgtccg
3661 cggagcggac tacacataca acctagagtt gggctcgcca gcaacgcttg gtaggtatga
3721 cctagtggtc ataaacatcc acacaccttt tgactcattg agactgctca aaccgggcgg
3781 ccacgcaatg aaactgcaaa tgctcggggg agatagaacc agtgaacgag tcatctgcgt
3841 ctctctattg atcagagcat atggttacgc agatagaacc ccattgtgtca ccagcaaac
3901 attgggacgc aagtttagat cgtctagagc gttgaaacca caatggcaga aggaatttca caactcatgt
3961 tgagatgttt ttcctattca gcaactttga caatggcaga aggaatttca caactcatgt
4021 catgaacaat caactgaatg cagccttcgt aggacaggtc accgagcag gatgtgcacc
4081 gtcgtaccgg gtaaaacgca tggacatcgc gaaagaacgat gaagagtgcg tagtcaacgc
4141 cgctaaccct cgcggttac cgggtggcgg tggttgcaag gcagtataca aaaaatggcc
4201 ggagtccttt aagaacagt9 caacaccagt gggaaccgca aaaacagtta tgtgcggtac
4261 gtatccagta atccacgctg ttggacaaa cttctctaat tattcggagt ctgaagg9ga
4321 ccgggaattg gcagctgcct atcgagaagt cgcaaaaggaa gtaactaggc tgggagtaaa
4381 tagtgtagct atacctctcc tctccacagg tgtatactca ggagg9aaag acaggctgac
4441 ccagtcactg aaccacctct ttacagccat ggactcgacg gactcgacg gatgcagacg tggtcattca
4501 ctgcccgcgac aaagaatggg agaagaaaat atctgaggcc atacagatgc ggacccaagt
4561 agagctgctg gatgagcaca tctccataga ctgcgatat tgcgctgac accctgacag
4621 cagcttggca ggcagaaaag gatacagcac cacggaaaggc gcactgtact catactaga
4681 agggacccgt tttcatcaga cggctgtgga tatggcggag atacatacta tgtggccaaa
4741 gcaaacacag gccaatgagc aagtctgcct atatgccctg ggggaaagta ttgaatcgat
4801 caggcagaaa tgcccgggtg atgatgcaga cgcattcatc cccccaaa ctgtcccgtg
4861 cctttgccgt tacgctatga ctccagaacg cgtcaccccg cttcgcataa accacgtcac
4921 aagcataatt gtgtgttctt cgtttccctt ccaaaagtac aaaatagaag gagtgcacaa
4981 agtcaaatgc tctaaggtaa tgctatttga ccacaacgtg ccatcgcgcg taagtccaag
5041 ggaatataga tcttcccagg agtctgcaca ggagggcagt acaatcacgt cactgacgca

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FIG. 24 (continued)

5101 tagtcaattc gacctaaagc ttgatggcga gatactgccc gtcccgtcag acctggatgc
 5161 tgacgcccc gccctagaac cagcactaga cgacggggcg acacacagc tgccatccac
 5221 aaccggaac cttgcgccg tgctctgattg ggtaatgagc accgtacctg tcgcgccgccc
 5281 cagaagaag cgaggagaa acctgactgt gacatgtgac gagagagaag ggaatataac
 5341 acccatggct agcgtccgat tctttagggc agagctgtgt ccggtcgtac aagaaacagc
 5401 ggagacgcgt gacacagcaa tgtctcttca ggcaccaccg agtacgcca cggaaccgaa
 5461 tcatccgccc atctcctcg gacatcaag gcttgtcttc cgagacgttc ccattacat ttggggactt
 5521 caacgaagga gaaatcgaa gcttgtcttc tgagctacta actttcggag acttcttacc
 5581 aggagaagtg gatgacttga cagacagcga ctgggtccacg tgctcagaca cggacgacga
 5641 gttaagacta gacagggcag gtgggtatat attctcgtcg gacaccgtc caggtcatth
 5701 acaacagaag tcagtacgcc agtcagtgtc gccggtgaac accctggagg aagtccacga
 5761 ggagaagtgt taccaccta agctggatga agcaaggag caactattac ttaagaaact
 5821 ccaggagagt gcatccatgg ccaacagaag caggtatcag tcgcgcaaa tagaaaaacat
 5881 gaaagcagca atcatccaga gactaaagag aggtctgtaga ctatacttaa tgcagagac
 5941 ccaaaaagtc cctacttacc ggactacata tccggcgctt gtgtactcgc ctccgatcaa
 6001 cgtccgattg tccaatcccg agtccgcagt ggcagcatgc aatgagttct tagctagaaa
 6061 ctatccaact gtctcatcat accaaattac cgacgagtat gatgcatac tagacatggt
 6121 ggacgggtcg gagattgcc tggaccgagc gacattcaat ccgtcaaaac tcaggagcta
 6181 ccgaaacag cagcttacc acgcccctc catcagaagc gctgtaccgt cccattcca
 6241 gaacacacta cagaatgtac tggcagcagc cagaaaaaaga aactgcaacg tcacacagat
 6301 gagggaatta cccactttgg actcagcagt attcaacgtg gagtgttca aaaaattcgc
 6361 atgcaaccaa gaatactggg aagaatttgc tggcagccct tcgcaataa caactgagaa
 6421 tttagcaacc tatgttacta aactaaaagg gccaaaagca gcagcgctat tcgcaaaaaac
 6481 ccataatcta ctgccactac aggaagtacc aatggatagg ttcacagtag atatgaaaaag
 6541 ggacgtaaaag gtgactcctg gtacaaaagca tacagaggaa agacctaaag tgcaggttat
 6601 acaggcggtt gaacccttgg cgacagcata cctatgtggg attcacagag agctgtttag
 6661 gaggtgaac gccgtcctcc taccatgtt ccatatcacta ttgacatgt ctgccgagga
 6721 ttctgatgcc atcatagccg cacactttaa gccaggagac actgttttgg aaacggacat
 6781 agcctcctt gataagagcc aagatgattc acttgcgctt actgcttga tgctgttaga

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FIG. 24 (continued)

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6841 ggatttaggg gtggatcact ccctgctgga cttgatatag gctgctttcg gagagatttc
6901 cagctgtcac ctaccgacag gtacgcgctt caagttcggc gccatgatga aatcaggtat
6961 gttcctaact ctgttcgtca acacattgtt aacatcacc atcgccagcc gagtgctgga
7021 agatcgtctg acaaaatccg cgtgcgcggc cttcatcggc gacgacaaca taatacatgg
7081 agtcgtctcc gatgaattga tggcagccag atgtgccact tggatgaaca tggaaagtga
7141 gatcatagat gcagttgtat ccttgaaagc ccttactttt ctggaagggc ttatactgca
7201 cgatactgtg acaggaacag cttgcagagt ggcagacccg ctaaaaaggc tttttaact
7261 gggcaaaccc ctacggcgag gtgacgaaca agatgaagat agaagacgag cgtgggctga
7321 cgaagtgtc agatggcaac gaacagggct aattgatgag ctggagaaag cgtatatctc
7381 taggtacgaa gtgcagggtat tatcagttgt ggtaatgtcc atggccacct ttgcaagctc
7441 cagatccaac ttcgagaagc tcagaggacc cgtcataact ttgtacggcg gtcctaata
7501 ggtacgcact acagctacct attttgcaga agccgacagc aagtatctaa acactaatca
7561 gctacaaatg agttcatccc aaccaaact tttacaata ggaggtacca gcctcgacc
7621 tggactccgc gccctactat ccaagtcac gaagaataag aagcaaaagc aaaaacaca ggcgccaca
7681 gggcaacttg ccagctgat ctcagcagtt ctacgagttt aataaaactga caatgcgcgc ggtaccaca
7741 cagaagccac gcaggaaatcg gaagaataag aagcaaaagc aaaaacaca ggcgccaca
7801 aacaacacaa atcaaaagaa gcagccacct gacgataaag atcgaaaatg acaagtaat gaaaccagca
7861 ccgggccgca gagagaggat gtgcatgaaa ttacgcgtgc taacgcggac ctggccaaac tggcctttaa gcggtcatct
7921 cacgaaggta aggtaacagg ttacgcgtgc taacgcggac ctggccaaac tggcctttaa gcggtcatct
7981 cacgtaaagg ggacctcga ttgaatgcgc gcagataccc gtgacataac tggcaccacg gagcagtaca gtactcagga
8041 aagtatgacc ttgaatgcgc gcagataccc gtgacataac tggcaccacg aaaccagggg acagcggcag accgatcttc
8101 acccatgaga aaccggaggg gtactacaac aggtgctggc aaaccagggg ttaggaggag ctaatgaag agcccgtaca
8161 ggccggttca ccatccctac aggtgctggc aaaccagggg ttaggaggag attgtcacta aaatcacccc cgagggggcc
8221 gacaacaagg gacgcgtggt ggccatagtc cccagttatg tgcctgttgg caaacaccac gttccccctgc
8281 gccctctcgg tggtagacctg gaataaagac attgtcacta aaatcacccc cgagggggcc
8341 gaagagtgga gtcttgccat cccagttatg tgcctgttgg caaacaccac gttccccctgc
8401 tcccagcccc cttgcacgcc ctgctgctac gaaaaggaaac cgagggaac cctacgcatg
8461 cttgaggaca acgtcatgag acctgggtac tatcagctgc tacaagcatc cttaacatgt
8521 tctccccacc gccagcgacg cagcaccaaag gacaacttca atgtctataa agccacaaga

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FIG. 24 (continued)

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8581 ccataacttag ctcaactgtcc cgactgtgga gaagggcact cgtgccatag tcccgtagca
8641 ctagaacgca tcagaaatga agcgacagac gggacgctga aaatccaggt ctcccttgcaa
8701 atcggaataa agacggatga cagccacgat tggaccaagc tgcgttatat ggacaaccac
8761 atgccagcag acgcagagag ggcggggcta tttgtaagaa catcagcacc gtgtacgatt
8821 actggaacaa tgggacactt catcctggcc cgatgtccaa aagggaaac tctgacggtg
8881 ggattcactg acagtaggaa gattagtac tcatgtacgc accatttca ccacgaccct
8941 cctgtgatag gtcgggaaaa attccattcc cgaccgagc acggtaaaga gctaccttgc
9001 agcacgtacg tgcagagcac cgccgcaact accgaggaga tagaggtaaca catgccccca
9061 gacacccctg atcgacatt aatgtcacia cagtccggca acgtaaaagt cacagtcaat
9121 gccagacgg tgcggtacaa gtgtaattgc ggtggctcaa atgaaggact acaactaca
9181 gacaaagtga ttaataactg caaggttgat caatgtcatg ccgcggtcac caatcacaaa
9241 aagtggcagt ataaactccc tctggtccc gtaaatgctg aacttgggga ccgaaaaggga
9301 aaaattcaca tccggtttcc gctggcfaat gtaacatgca ggtgacctaa agcaaggaaac
9361 ccacccgtga cgtacgggaa aaaccaagtc atcatgctac tgtatcctga ccaccaaca
9421 tcctgtcctt accggaatat ggtgcccact ccaactatc aagaagagtg ggtgatgcat
9481 aagaaggaa gtcgtgctaac cgtgccgact gaggggctcg aggtcacgtg gggcaacaac
9541 gagccgtata agtattggcc gcagttatct acaaacggtc cagcccatgg ccaccgcgat
9601 gagataattc tgtattatta tgagctgtac cccactatga ctgtagtagt tgtgtcagtg
9661 gccacgttca tactcctgtc gatggtgggt atggcagcgg ggatgtgcat ggtgacaga
9721 cgcagatgca tcacaccgta tgaactgaca ccaggagcta ccgtccctt cctgcttagc
9781 ctaatatgct gcatacagaac agctaaagcg gccacatacc caagccctta tcccgctggc agccctgatt
9841 tggaacgagc agcaaccttt gttttggcta caagccctta tcccgctggc agccctgatt
9901 gttctatgca actgtctgag actcttacca tgctgctgta aaacgttggc ttttttagcc
9961 gtaatgagcg tcggtgcca cactgtgagc gcgtacgaac acgtaacagt gatccgaac
10021 acggtgggag tactgtataa gactctagtc aatagacctg gctacagccc catggtattg
10081 gagatgggag tactgtcagt cactttggag ccaacactat cgcttgatta catcacgtgc
10141 gagtacaaaa ccgtcatccc gtctccgtac gtgaagtgtt gcggtacagc agagtgcagg
10201 gacaaaaaac tacctgacta cagctgtaag gtcttcaccg gcgtctaccc atttatgtgg

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FIG. 24 (continued)

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10261 ggcgggcct actgcttctg cgacgctgaa aacacgcagt tgagcgaagc acacgtggag
10321 aagtcggaat catgcaaaac agaatttgca tcagcataca gggctcatag cgcattctgca
10381 tcagctaagc tccggtcct ttaccaagga aataacatca ctgtaactgc ctatgcaaac
10441 ggcgaccatg ccgtcacagt taaggacgcc aatttcatg taaggccaat gtcttcagcc
10501 tggacacctt tcgacaacaa aattgtggtg taaaagggtg acgtctataa catggactac
10561 ccgccctttg gcgcaggaa gacaggaactg ttggcgata ttcaaagtcg cacacctgag
10621 agtaagacg tctatgctaa tacacaactg gtactgcaga gaccggctgt gggtacggtg
10681 cactgcat acttcaggc accatctggc tttaagtatt ggctaaaaga acgcggggcg
10741 tcgctgcagc acacagcacc atttggtgc caaatagcaa caaacccggt aagagcgggtg
10801 aactgcgcg tagggaacat gcccatctcc atcgacatac cggaagcggc cttcactagg
10861 gtcgtcgacg cgccctctt aacggacatg tcgtgcgagg taccagcctg caccattcc
10921 tcagactttg gggcgctgc cattattaaa tatgcagcca gcaagaaagg caagtgtgctg
10981 gtgcattcga tgactaacgc cgtcactatt cgggaagctg agatagaagt tgaagggaat
11041 tctcagctgc aaatctctt ctcgacggc ttagccagcg ccgaattccg cgtacaagtc
11101 tgttctacac aagtacactg tgcagccgag tgccaccccc cgaaggacca catagtcaac
11161 taccggcgt caccataccac cctcggggtc caggacatct ccgctacggc gatgtcatgg
11221 gtgcagaaga tcacgggagg tgtgggactg gttgttgctg ttgccgcact gattctaatc
11281 gtggtgctat gcgtgtcgtt cagcaggcac taacttgaca attaagtatg aaggtatatg
11341 tgtccctaa gagacacact gtacatagca aataatctat agatcaaagg gctacgcaac
11401 ccctgaatag taacaaaata caaatcact aaaaattata aaacagaaa aatacataaa
11461 taggtatacg tgtccctaa gagacacatt gtatgtagggt gataagtata gatcaagggt
11521 ccgaataacc cctgaatagt acaaaaatat gaaaatcaat aaaaatcata aaatagaaaa
11581 accataaaca gaagtgttc aaagggtctat aaaaaccctg aatagtaaca aaacataaaa
11641 ttaataaaaa tcaaatgaat accataatg gcaaacggaa gagatgtagg tacttaagct
11701 tcctaaaagc agccgaactc actttgagaa gtaggcatag cataccgaac tcttccacga
11761 ttctccgaac ccacagggac gtaggagatg ttattttgtt ttaatatatt caaaaaaaa
11821 aaaaaaaa acgaaagggt caggtggcac ttttcgggga aatgtgcgcg aggggaatta
11881 attcttgaag acgaaagggt caggtggcac ttttcgggga aatgtgcgcg gaaccctat
11941 ttgttttatt ttctaaatag attcaaatat gtatccgctc atgagacaat aaccctgata

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FIG. 24 (continued)

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12001 aatgcttcaa taatttgaa aaaggaagag tatgagtatt caacatttcc gtgtcgccct
12061 tattcccttt ttgcggcatt ttgaccttc acgagtgggt tggttttgct cactggtgaa
12121 agtaaaagat gctgaagatc agttgggtgc cgaagaacgt tttccaatga tggatctcaa
12181 cagcggtaag atccttgaga gttttcgccc cgtgttgac gctggtgac agcaactcgg
12241 taaagtctg ctagtggtgc agaagactt taagagaatt atgcagtgtt gccataacca tgaagtataa
12301 tcgccgcata cactatttc gcatgacag taagagaatt cgagggaccg aaggagctaa ccgcttttt
12361 tcttacggat gcatgacag taagagaatt taactcgctt tgatcgttg gaaccggagc tgaatgaagc
12421 cactgcggcc aacttactt gcatgacag taagagaatt taactcgctt tgatcgttg gaaccggagc tgaatgaagc
12481 gcacaacatg gggatcatg gcatgacag taagagaatt taactcgctt tgatcgttg gaaccggagc tgaatgaagc
12541 cataccaaac gacgagcgtg acaccacgat taactcgctt tgatcgttg gaaccggagc tgaatgaagc
12601 actattaaact ggcgaactac taactcgctt tgatcgttg gaaccggagc tgaatgaagc
12661 ggcggataaa gttgcaggac cacttctgct agctggttc cagcagggg ctcactgatt aagcattggt aactgtcaga
12721 tgataaatct ggagccgggtg tccgtatctg tagttatcta cagcagggg ctcactgatt aagcattggt aactgtcaga
12781 tggtaagccc tccgtatctg tagttatcta cagcagggg ctcactgatt aagcattggt aactgtcaga
12841 acgaaataga cagatcgctg agataggtgc tagttatcta cagcagggg ctcactgatt aagcattggt aactgtcaga
12901 ccaagtttac tcataatac ttagattga ttaaaaactt ctttaaat caatttaag actggatgga
12961 ctagggtgaag atcctttttg ataactctat gaccaaactc ccttaacgtg agttttcgtt
13021 cactgagcg tcagaccccg tagaaaagat caaaggatct tcttgagatc ctttttttct
13081 gcgcgtaatc tgctgcttgc aaacaaaaa accacgccta ccagcgttg tttgtttgcc
13141 ggatcaagag ctaccaactc tttttccgaa ggttaactggc ttcagcagag cgcagatacc
13201 aaatactgtc cttctagtgt agccgtagt agccaccac ttcagaact ctgtagcacc
13261 gcctacatac ctgctctgc taatcctgtt accagtggct gctgccagt gcgataagtc
13321 gtgtcttacc ggttgact caagacgata gttaccggat aaggcgagc ggtcgggtg
13381 aacggggggt tcgtgcacac agccagctt ggagcgaaag cctacaccg aactgagata
13441 cctacagcgt gagcattgag aaagcggccac gcttccgaa gggagaaaag cggacaggta
13501 tccggtaagc ggcaggggtcg gaacaggaga gcgcacgagg gacttccag ggggaaacgc
13561 ctggtatctt tatagtcctg tcgggttctg ccacctctga cttgagcgtc gatttttgtg
13621 atgctcgtca ggggggcgga gcctatggaa aaacggccagc aacgcgagct cgtatggaca
13681 tattgtcgtt agaacggcg cctatggaa aaacggccagc aacgcgagct cgtatggaca
13741 ttaggtgaca ctatag

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FIG. 25

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1  atgggtgcgt gagacacag tagcctacca gtttcttact gctctactct gcttagcaag
61 agacttgaga acccatcatg gatcccggtg acgtggacat agacgccgac agcgcccttt
121 taaaggccct gcagcgtgcg taccctatgt ttgaggtgga accaaggcag gtcacaccga
181 atgaccatgc caatgctaga gcattctcgc atctagctat aaaactaata gacaggaata
241 ttgatcccga ctcaaccatc ctggacatag gcagcgcgcc agcaaggagg atgatgtcgg
301 ataggaagta ccaactgcgtt tgccctatgc gcagcgcaga agaccctgag agactcgcca
361 actacgcgag aaaactagca tctgccgag tctgcccgtg gaaaagtctt ggacagaaac atctccgaaa
421 aaattggaga tctacaagca gtaatggctg taccagacgc agaaacgcc acattctgct
481 tgcacactga cgtctcatgt agacaaaggg cggacgtcgc tataaccag gatgtctacg
541 ccgtgcctgc accaacatcg ctgtaccacc aggcgattaa aggagtcctg tagcatact
601 ggatagggtt tgatacaacc ccgttcatgt ataatgccat ggcaggtgca taccctcgt
661 actcgacaaa ctgggcagat gagcaggtgc tgaaggcaaa gaacatagga ttatgttcaa
721 cagacctgac ggaaggtaga cgaggtaaat tgtctatcat gagaggaaaa aagatgaagc
781 catgtgaccg cgtactgttc tcagtcgggt tcagtggtcc caacgcttta cccggagagc cgtaagcttc
841 ttaagagttg gcacttacct tcagtggtcc atctaaaagg gaagctcagc ttcacgtgcc
901 gctgtgatac agtggtttcg tgtgaaggct atgtcgttaa gagaataacg attagcccg
961 gcctctacgg taaaaccaca ggttacgcag taaccacca tgcagacgga ttcctaatgt
1021 gcaaaacaac cgatacggta gatggcgaga gagtgtcatt ttcggtatgc acgtacgtac
1081 ccgcaaccat ttgtgatcaa atgacaggta ttcttgccac ggaggttaca ccggaggatg
1141 cacagaagct gctggtgga aatgaagaat tacttgcttc ggatagtggt caatggcaga acgcagagga
1201 acacgaacac aatgaagaat tacttgcttc ctgtagttgc ccaagccctc agtaagtggg
1261 caaagggaatg ccggaagaat atggaagatg aaaaactttt ggcatcaga gaaaggacac
1321 tgacatgctg ctgccctttg gcgttcaaga agcagaagac acacacggtc tacaagaggc
1381 ctgacactca gtcaattcag aaagtcccag ccgaatttga cagctttgtg gtaccaagtc
1441 tgtggtcac tggactgtcg atcccgtac atcccgtac ggaccagaat caagtggctg ctaagcaag

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FIG. 25 (continued)

1501 tgccaaagac tgatttgatc ccttacagcg gtgacgccaa agaagcccgc gacgctgaaa
 1561 aagaagcaga agaagaacga gaagcggagc taactcgcga ggcactacca ccactacagg
 1621 cggcacagga cgacgtccag gtcgaaattg acgtggaaca gctcgaagac agagctgggg
 1681 caggaataat tgaactcca agaggagcta tcaaagtcac tgcccaacca acagaccacg
 1741 tcgtgggaga gtacttggtg ctttccccgc agaccgtgtt acgaagccag aagctcagcc
 1801 tgatccacgc attggcgga caagtgaaga catgcacaca cagcggacgg gcaggaaggt
 1861 acgcggtcga agcatatgac ggcagaatcc ttgtgccctc aggtatgca atatcacctg
 1921 aagactcca gagcctgagc gaaagtgcga cgatggtgta caacgaaagg gagttcgtaa
 1981 ataggaaatt acaccatata gcgttgcacg gaccagccct gaacactgac gaggagtcgt
 2041 acgagctggt aagggcagaa aggacagagc atgagtacgt ctatgatgtg gaccaaaagaa
 2101 ggtgctgcaa gaaagaggag gcagccgggc tggtagtggc cggcgacttg accaaccggc
 2161 cctaccatga gttcgcatat gaaaggctga gaatccggcc cgcctgcca tacaagaccg
 2221 cagtaatagg ggtctttgga gtgccaggat ccggcaaatc agcaatcatt aagaacctag
 2281 ttaccaggca agacctagtg accagtgga accaagaaaa ctgccaaagaa atctccaccg
 2341 acgtgatgcg acagaggaaac ctggagatat ctgcacgcac ggtcgactca ctgctcttga
 2401 acggatgcaa tagaccagtc gacgtgttgt acgtcgacga agcttttgcg tgccattctg
 2461 gcacgctact tgctctgata gccttggtga gaccgaggca gaaagtcgtg ctatgcggtg
 2521 atccgaaaca gtgcggcttc ttcaatatga tgcagatgaa agttaactac aaccataaca
 2581 tctgcaccca agtgtaccat aaaagtattt ccaggcggtg tacactgcct gtgactgcca
 2641 ttgtgtcctc gttgcattac gaaggcaaaa tgcgcacaac aaatgagtag aacaagccaa
 2701 ttgtagtgga tactacaggc tcgacaaaac ccgaccccg agacctgtg ctaacatgtt
 2761 tcagaggggtg ggtaagcaa ctgcaaatg actatcgtgg acacgaggtc atgacagcag
 2821 ctgcatctca ggggctaacc agaaaagggg tctatgccgt caggcaaaaa gttaatgaaa
 2881 acccccttta cgcatacaac tcagagcacg tgaacgtgct actgacgct acggaaggca
 2941 aactagtatg gaagacactt tctggagacc catggataaa gacactgcag aaccggcca

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FIG. 25 (continued)

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3001 aaggaaattt taaagcaaca attaaggaat gggaagtggg acatgcttca ataatggcgg
3061 gtatctgtaa ccaccaagtg acctttgaca cgttccagaa taaagccaat gtctgctggg
3121 cgaagagctt agtcccatc ctagaacag cagggataaa attaaacgac aggcagtggg
3181 ccagataaat ccaggctttt aaagaagaca gagcatactc accgaggtg gccctgaatg
3241 agatatgcac gcgcattgtac ggggtagacc tggacagcgg actgttctct aaaccactgg
3301 tgtccgtgca tcatgcggat aatcactggg acaacaggcc gggaggggaa atgttcggat
3361 tcaaccccca agcggcgtcc atactggaga ggaaataccc gttataaaa gggaagtggg
3421 ataccaacaa gcaaatctgt gtgactacta ggaggattga agattttaac cgaaacacca
3481 acattatacc tgccaacagg agattaccgc attcattggg gcccgaaatc cgcccggtaa
3541 aaggggagag gatggaatgg ttggtcaaca aaataaatgg ccaccatgtg ctctgggtca
3601 gcggctacaa cctcgttctg ccactaaga gagtcacctg ggtggcgccg ctgggcattc
3661 ggggagctga ctacacatac aacctagagt taggcctacc agcaacgctc ggtagatatg
3721 acctagtgat tataaacatc cacacacctt ttgcataaca tcattaccaa cagtgcgtgg
3781 atcacgcaat gaagctgcag atgctcggag gagactccct gagactgctc aagccgggtg
3841 gttcattact gatcagggca tacggctacg cagacagaac aagcgaaacg gtagtctgcg
3901 tattgggacg caagtttcga tcatccagag cgttgaaacc gccgtgcgtc actagcaaca
3961 ccgagatgtt tttcttgttc agcaactttg ataacggcag aaggaaactt acgacgcacg
4021 taatgaacaa ccagctgaaat gctgcttttg ttggtcaggc caccgagca ggtgcgcac
4081 cgtcgtaccg ggttaaaccg atggacatcg caaagaacga tgaagagtgt gtagtcaacg
4141 ccgccaaacc tcgtgggcta ccaggcgatg gcgtctgtaa agcagtatac aaaaaatggc
4201 cgagtcctt caagaacagt gcaacaccag tgggaaccgc aaagacagtc atgtgcggtg
4261 catacccggt aatccatgca gtaggacctg atttctcaaa ttactctgag tccgaaggag
4321 accgggaatt ggcagctgct taccgagaag tcgctaagga ggtgactaga ctaggagtaa
4381 acagcgtagc tataccgctc ctttccaccg gtgtgtactc tggagggaaa gacaggctga
4441 ctcagtcact aaaccacctt ttacagcat tagactcaac tgatgcagat gtggttatct

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FIG. 25 (continued)

4501 actgccgcga caaggagtgg gagaagaaaa tagctgaggg catacaaatg aggacccaag
 4561 tggaattact agacgaacac atctctgtag actcgatat catccgagtg caccctgaca
 4621 gcagtttggc aggtagaaaa ggtacagca ctacagaagg ttcaactgtac tcctacttgg
 4681 aaggacacg gttccatcag acggcagtgg acatggcaga agtatacacc atgtggccaa
 4741 agcagacgga ggctaattgaa caagtttgct tgtacgcatt gggggaaaagt atagaatcaa
 4801 tcaggcaaaa gtgcccagtg gatgacgcag atgcacgtc gcccccaaaa accgtcccgt
 4861 gcctctgccg ttatgccatg acaccgaac gagtccaccag gcttcgtatg aaccatgtca
 4921 caagcataat agtatgctca tcattccccc ttccaaaagta taaaatagaa ggagtgcaga
 4981 aagtcaagtg ttctaaagtg atgctgttcg accataacgt gccatcacgc gttagtccaa
 5041 gggaatataa atcgccctcag gagaccgcac aagaagtaag ttcgaccacg ttcactgacgc
 5101 acagccaatt cgaccttagc gttgacggtg aggaactgcc cgctccgtct gacttggaag
 5161 ctgacgctcc gattccggaa ccaacaccag acgacagagc ggtacttact ttgcctccca
 5221 cgattgataa tttttcggct gtgtcagact gggtaatgaa taccgcgcca gtcgcaccac
 5281 ccagaagaag acgtgggaaa aacttgaatg tcacctgcga cgagagagaa gggaaacgtac
 5341 ttcccatggc tagcgttcgg ttcttcagag cggatctgca ctccatcgta caggaaacgg
 5401 cagagatacg cgatacggcc gcgtccctcc aggcgcccct gagtgtcgct acagaaccga
 5461 atcaactgcc gatctcattt ggagcaccaa acgagacttt ccccataacg ttcggggatt
 5521 ttgatgaagg ggagattgaa agcttgtcct ctgagttact gacctttggg gacttctcgc
 5581 cgggcgaagt ggatgacctg acagacagcg actgggtccac gtgttcagac acggacgacg
 5641 aattatgact agatagggca ggtgggtaca tattctcatc tgacacccgc cccggccacc
 5701 tgcaacagag gtctgtccgt cagacagtac tgccggtaaa taccttggag gaagttcagg
 5761 aggagaaatg ttaccacctt aagttggatg aagtgaagaa gcagttgtta cttaagaaac
 5821 tccaggaaag tgcgtccatg gctaacagaa gcaggtacca atccgcгааa gtagagaaaca
 5881 tgaaagcaac aatagtcгааa aggcgtgaagg gtggttgcaa actttattta atgtcggaga
 5941 ccccgaaagt tcctacctac cgaactacat atccggcacc agtgtactca cccccaatca

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FIG. 25 (continued)

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6001 atatccgact gtccaaacccc gactctgctg tggcagcgtg caatgagttc ctagcaagga
6061 actatccgac agttgcgtcg taccaaatca ccgatgagta cgatgcatac ctagacatgg
6121 tggacgggtc ggaagttgc cttgaccggg cgacgttcaa ccatcaaaag cttagaagtt
6181 atccaaaaca gactccctac catgcaccca caatcagaag tgccgtacct tcccgttcc
6241 agaacacgct gcagaaacgta ctggctgctg ccacgaaaag aaattgcaac gtcacacaga
6301 tgagagaact gcctactttg gattcagcgg tatttaatgt tgagtgcctt aaaaaatttg
6361 cgtgcaatca agaatactgg aaggaaattg ccgccagccc tattaggata acgactgaga
6421 acttgacaac ttatgtcaca aaactaaaag gaccaaaagc agcagcactg ttgccaaga
6481 cacataacct gctaccactg caggaggctg cgatggacag gtttactgta gacatgaaaa
6541 gggacgtgaa ggtgactccg gggacgaagc acactgagga aagacctaaa gtgcagggtca
6601 tacaggcagc cgaacctttg gcaacagcat atctgtgtgg gatccacaga gagtgggtca
6661 gaaggctgaa tgcagtcctt ctacctaatg tacacacgct gtttgacatg tctgccgagg
6721 actttgacgc cattattgcc gcgcacttca agccggggga cgccgtattg gaaaccgata
6781 tagcctcctt tgacaagagc caagacgact cattggcgct cactgctcta atgttgctag
6841 aggatttggg ggtggatcat cccctgttgg acttgataga ggctgccttc ggggagatct
6901 ccagctgcca cctaccgacg ggcacccggt ttaagttcgg cgccatgatg aagtctggtg
6961 tgttccctaac cctgttcgtc aacacactgc taaacatcac catagccagc cgagtgcctgg
7021 aggaccgctt gacaaggctc gcgtgcgcgg ccttcacatcg cgacgacaat ataatacatg
7081 gggttgtctc tgacgaaactg atggcagcaa ggtgtgctac atggatgaac atggaagtga
7141 agatcataga tgcggtcgtg tctcagaaaag ccccgctactt ctgcggagggg ttatactgt
7201 atgacacagt agcaggcacg gcctgcagag tggcagaccc gctaaagcgg ctgttcaagc
7261 tgggcaaac gctggcagcg ggagatgaac aagacgacga cagaagacgt gcactggctg
7321 acgaagtggg tagatggcaa cgaacaggac taactgatga gctagaaaaa gcggtacact
7381 ccaggtatga agtgcagggc atatctgtcg tggtaatgtc tatggccacc tttgcaagct
7441 ctagatctaa ctttgagaag ctcagaggac ccgtcgtaac cctgtacggt ggtcctaaat

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FIG. 25 (continued)

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7501 aggtacgcac tacagctacc tatttcgtca gaaaccaatc gcagctactt gcataacctac
7561 cagctacaat ggagttcatc ccgacgcaaa ctttctataa cagaaggtag caaccccgac
7621 cctgggcccc acgccctaca attcaagtaa ttagacctag accacgtcca cagaggcagg
7681 ctgggcaact cgcccagctg atctccgag tcaacaaatt gaccatgcgc gcggtacctc
7741 aacagaagcc tcgcagaaat cggaataaca agaagcaaaag gcagaagaag caggcgccgc
7801 aaaacgaccc aaagcaaaaag aagcaaaccc acaaaaagaa gccggctcaa aagaagaaga
7861 aaccaggccg tagggagaga atgtgcatga aaattgaaaa tgattgcata ttcgaagtca
7921 agcatgaagg caaagtgatg ggctacgcac gcttggtggg ggataaagta atgaaaccag
7981 cacatgtgaa gggaactatc gacaatgccg atctgggctaa actggccttt aagcggctcg
8041 ctaaatacga tcttgaatgt gcacagatac cggtgccatc gaagtctgat gcctcgaagt
8101 ttaccacaga gaaacccgag gggctactata actggcctca cggagcagtg cagtattcag
8161 gaggccggtt cactatcccg acgggtgcag gcaagccggg agacagcggc agaccgatct
8221 tcgacaacaa aggacgggtg gtggccatcg tcctaggagg ggccaacgaa ggtgccccga
8281 cgccctcttc cgtggtgacg tggaaacaaag acatcgtcac aaaaattacc cctgagggag
8341 ccgaagagtg gagcctcgcc ctcccgtct tgtgcctgtt ggcaaacact acattcccct
8401 gctctcagcc gccttgcaca ccctgctgct acgaaaaagga accggaaagc accttgcgca
8461 tgcttgagga caacgtgatg agacccggat actaccagct actaaaagca tcgctgactt
8521 gctctcccca ccgccaaga cgcagtacta aggacaattt taatgtctat aaagccacaa
8581 gaccatatct agctcattgt cctgactgcg gagaagggca ttcgtgccac agccctatcg
8641 cattggagcg catcagaaat gaagcaacgg acggaacgct gaaaatccag gtctctttgc
8701 agatcgggat aaagacagat gacagccacg attggacca gctgcgctat atggatagcc
8761 atacgccagc ggacgaggag cgagccggat tgcttgtaag gacttcagca ccgtgcacga
8821 tcaccgggac catgggacac ttatttctcg cccgatgccc gaaaggagag acgctgacag
8881 tgggatttac ggacagcaga aagatcagcc acacatgcac acaccgctc catcatgaac
8941 cacctgtgat aggtaggag aggttccact ctcgaccaca acatgggtaa gagttacctt

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FIG. 25 (continued)

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9001 gcagcacgta cgtgcagagc accgctgcca ctgctgagga gatagagggtg catatgcccc
9061 cagatactcc tgaccgcacg ctgatgacgc agcagtctgg caacgtgaag atcacagtta
9121 atgggcagac ggtgcggtac aagtgcact tgcaaaattg atcagtgcc atgacaaacca
9181 cagacaaagt gatcaataac ctttagtcc cgcgcaacgc tgaactcggg gaccgtaaaag
9241 agaattggca atacaactcc catctggcaa acgtgacttg cagagtgcc aaagcaagaa
9301 gaaagatcca catccattc aacttacgga aaaaaccaag tcaccatgct gaccatccga
9361 accctacagt aacttacgga atgggacagg aaccaaatga ccacgaggag tgggtgacac
9421 cactcttgtc ttaccgtaac ggttaccttg accgtgccta ctgagggctc tggggcaaca
9481 acaagaaggga ggttaccttg ccgcagatgt ctacgaacgg tactgctcat ggtcacccac
9541 acgaaccata caagtactgg tatgagctgt acccactat gactgtagtc attgtgtcgg
9601 atgagataat cttgtactat tcatggtggt gcacagcagt gggaaatgtgt gtgtgcgcac
9661 tggcctcgtt cgtgcttctg tatgaattaa caccaggagc cactgttccc ttcctgctca
9721 ggcgcatatg ctgcgtcaga acgaccaagg cggccacata ttacgaggct gcggcatatc
9781 gcctgctatg acagcagccc ctgttctggt tgcaggctct tatcccgtg gccgccttga
9841 tatggaacga caactgtctg aaactcttgc catgctgctg taagaccctg gcttttttag
9901 tcgtcctgtg caactgtgct catcgggtgcc cacactgtga gcggtacga gtgatccccga
9961 ccgtaatgag agtaccgtat aagactcttg tcaacagacc ggtttacagc cccatggtgt
10021 acacggtggg gctacaaatca gtcaccttg aaccaacact acacttgac tacatcacgt
10081 tggagatgga aactgtcatc ccctcccgt acgtgaagtg ctgtggtaca gcagagtgca
10141 gcgagtacaa cctaccagac tacagctgca aggtctttac tggagtctac ccatttatgt
10201 aggacaaagag ctactgcttt tgcgacgccg aaaatacgcg attgagcgag gcacatgtag
10261 gggcgggcgc ctactgcttt acagagtttg catcggccta cagagccac accgcatcgg
10321 agaaatctga atcttgcaaa gctccgcgtc ctttaccag gaaacaacat taccgtagct gcctacgcta
10381 cgtcggcgaa gctccgcgtc ctaaggttgt cgtggggcca atgtcctcgg
10441 acggtgacca tgcggtcaca gtaaggacg ccaagtttgt

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FIG. 25 (continued)

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10501 cctggacacc ttttgacaac aaaatcgtgg tgtacaaagg cgacgtctac aacatggact
10561 accacacctt tggcgcagga agaccaggac aatttgggtga cattcaaagt cgtacaccgg
10621 aaagtaaaga cgtttatgcc aacactcagt tgggtactaca gaggccagca gcaggcacgg
10681 tacatgtacc atactctcag gcaccatctg gcttcaagta ttggctgaag gaacgaggag
10741 catcgctaca gcacacggca ccgttcggtt gccagattgc gacaaacccg gtaagagctg
10801 taaattgcgc tgtggggaac ataccaattt ccctcgacat accggatgcg gcctttacta
10861 gggttgtcga tgcacctctt gtaacggaca tgtcatgcga agtaccagcc tgcactcact
10921 cctccgactt tgggggcgtc gccatcatca aatacacagc tagcaagaaa ggtaaatgtg
10981 cagtacattc gatgaccaac gccgttacca ttcgagaagc cgacgtagaa gtagagggga
11041 actccagct gcaaatatcc ttctcaacag ccctggcaag cgccgagttt cgcgtgcaag
11101 tgtgctccac acaagtacac tgcgcagccg catgccacc tccaaaggac cacatagtca
11161 attaccagc atcacacacc acccttgggg tccaggatat atccacaacg gcaatgtctt
11221 gggtcagaa gattacggga ggagtaggat taattgttgc tgttgctgcc ttaattttaa
11281 ttgtggtgct atgcgtgtcg tttagcaggc actaaaccca gtataaggca cgaaataact
11341 aaatagcaaa agtagaaaagt acataaccag gtatatgtgc cccttaagag gcacaatata
11401 tatagctaa cactattaga tcaaaagggt tcataaacag gtataagtgt cccctaagag
11461 aaaccaataa aaatcataaa aagaaaaatc tcataaacag gtataagtgt cccctaagag
11521 acacattgta ttaggtagt aagtatagat caaagggcta tattaacccc tgaatagtaa
11581 caaaacacaa aaacaataaa aactacaaaa tagaaaaatct ataaacaaaa gtagttcaaa
11641 gggctacaaa accctgaaat agtaacaaaa cataaaatgt aataaaaaatt aagtgtgtac
11701 ccaaaaagag tacagtaaga atcagtgaat atcaccaattg gcaacgagaa gagacgtagg
11761 tatttaagct tcctaaaagc agccgaactc actttgagac gtaggcatag cataccgaac
11821 tcttcacta ttctccgaac ccacagggac gtaggagatg ttattttgtt ttaatatatt
11881 caaaaaaaa aaaaaaaaac aaaaaaaaac agcggccgct taattaatcg
11941 aggggaatta attcttgaag acgaaagggc caggtggcac ttttcgggga aatgtgcgcg

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FIG. 25 (continued)

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12001 gaacccctat ttgttttattt ttctaaatac attcaaatat gtatccgctc atgagacaat
12061 aacctgata aatgcttcaa taatatgaa aaaggaagag tatgagtatt caacatttcc
12121 gtgtcgccct tattcccttt tttgcggcat tttgccttcc tgtttttgct caccagaaa
12181 cgctggtgaa agtaaaagat gctgaagatc agttgggtgc acgagtgggt tacatcgaac
12241 tggatctcaa cagcggtaa atccttgaga gttttcgccc cgaagaacgt ttccaatga
12301 tgagcacttt taaagtcttg ctatgtggcg cggattatc ccgtgttgac gccgggcaag
12361 agcaactcgg tcgccgcata cactattctc agaatgactt ggttgagtac tcaccagtca
12421 cagaaaagca tcttacggat ggcattgacag taagagaatt atgcagtgtt gccataacca
12481 tgagtataa cactgcggcc aacttacttc tgacaacgat cggaggaccg aaggagctaa
12541 ccgctttttt gcacaacatg ggggatcatg taactcgcct tgatcgttgg gaaccggagc
12601 tgaatgaagc cataccaac gacgagcgtg acaccacgat gcctgtagca atggcaacaa
12661 cgttgcgcaa actattaact ggcgaactac ttactctagc ttcccgga caattaatag
12721 actggatgga ggcggataaa gttgcaggac cacttctgcg ctccggcctt ccggctggct
12781 ggtttattgc tgataaatct ggagccggtg agcgtgggtc tcgcggtatc attgcagcac
12841 tggggccaga tggtaagccc tcccgtatcg tagttatcta cacgacgggg agtcaggcaa
12901 ctatggatga acgaaataga cagatcgctg agataggtgc ctactgatt aagcatttgt
12961 aactgtcaga ccaagtttac tcatatatac tttagattga tttaaaactt catttttaat
13021 ttaaaaggat ctagggtgaag atcctttttg ataattctcat gaccaaaatc ccttaacgtg
13081 agttttcggt cactgagcg tcagaccccg tagaaaaagat caaaggatct tcttgagatc
13141 ctttttttct gcgcgtaatc tgctgcttgc aaacaaaaaa accaccgcta ccagcgtgg
13201 tttgtttgcc ggatcaagag ctaccaactc tttttccgaa ggttaactggc ttcagcagag
13261 cgcagatacc aaatactgtc cttctagtgt agccgtagtt aggccaccac ttcaagaact
13321 ctgtagcacc gcctacatac ctgcctctgc taatcctgtt accagtggct gctgccagtg
13381 gcgataagtc gtgtcttacc gggttggact caagacgata gttaccggat aaggcgagc
13441 ggtcgggctg aacggggggt tcgtgcacac agcccagctt ggagcgaacg acctacaccg

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FIG. 25 (continued)

13501 aactgagata cctacagcgt gagcattgag aaagcgccac gcttcccgaa gggagaaaagg
13561 cggacaggta tccggtaagc ggcagggtcg gaacaggaga gcgcacgagg gagcttccag
13621 ggggaaacgc ctggtatctt tatagtcctg tcgggtttcg ccaccttga cttgagcgtc
13681 gattttgtg atgctcgtca ggggggcgga gcctatggaa aaacgcccagc aacgcgagct
13741 cgtatggaca tattgtcgtt agaacgcggc tacaattaat acataaacctt atgtatcata
13801 cacaatcgat ttaggtgaca ctatag