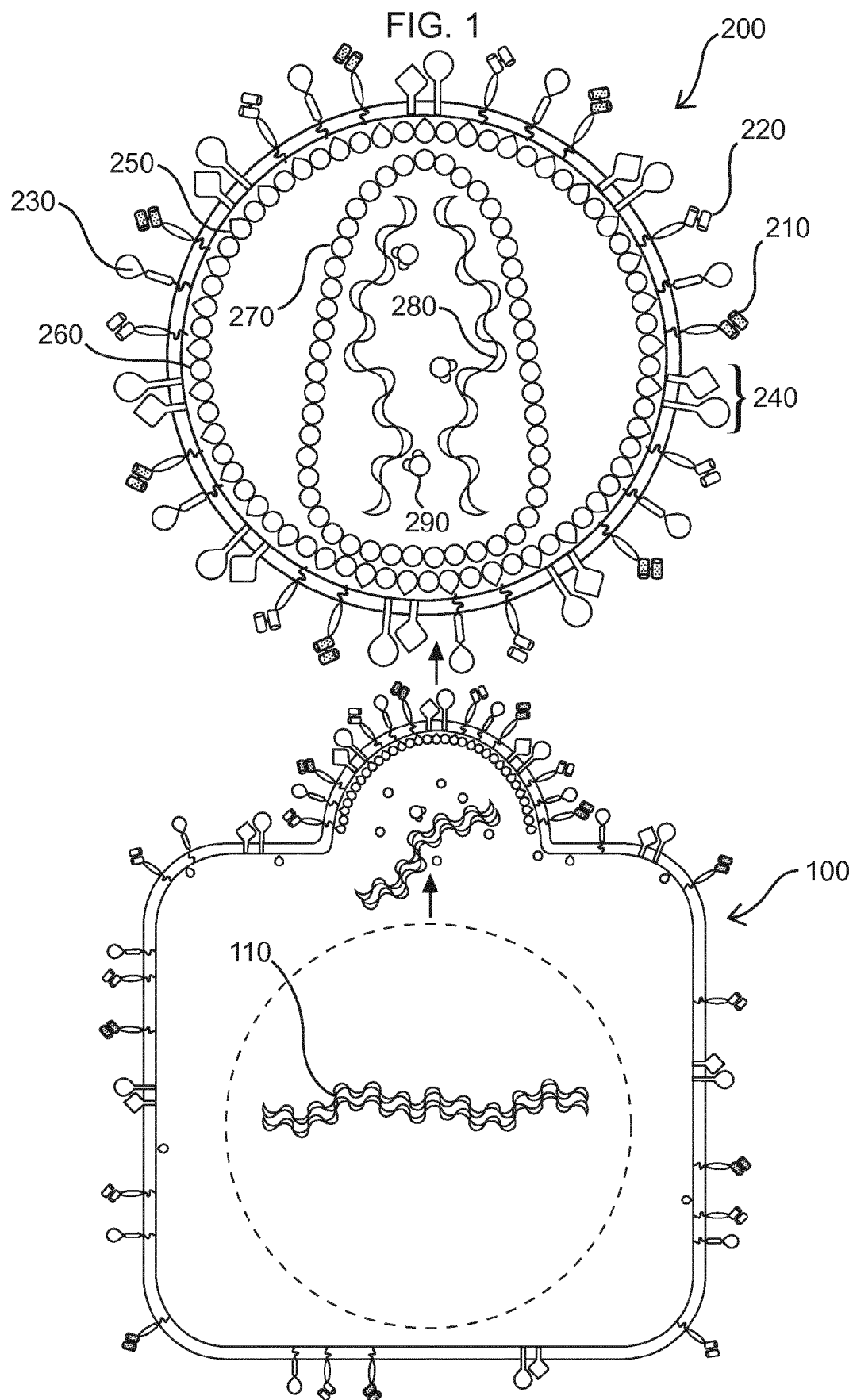
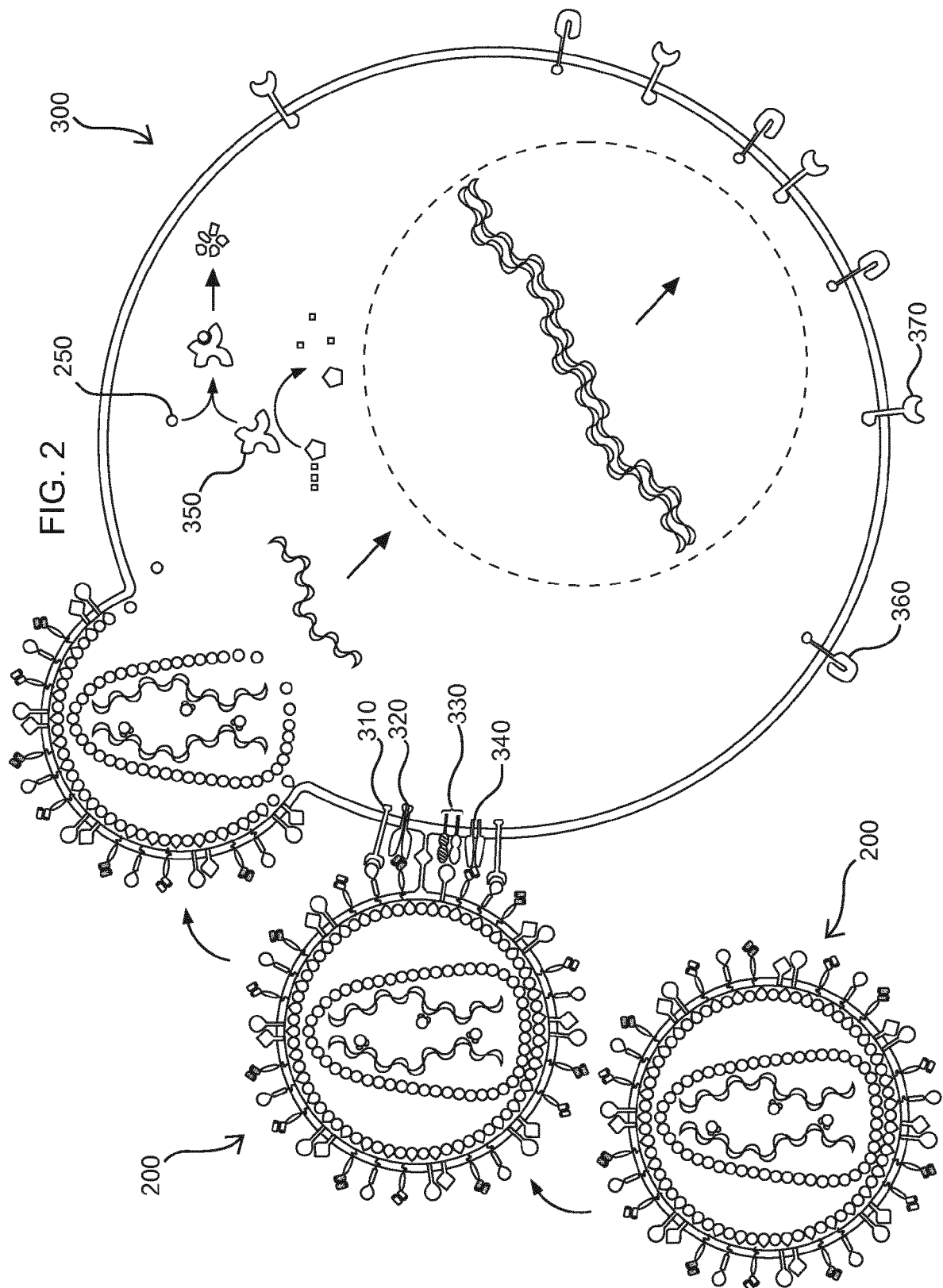






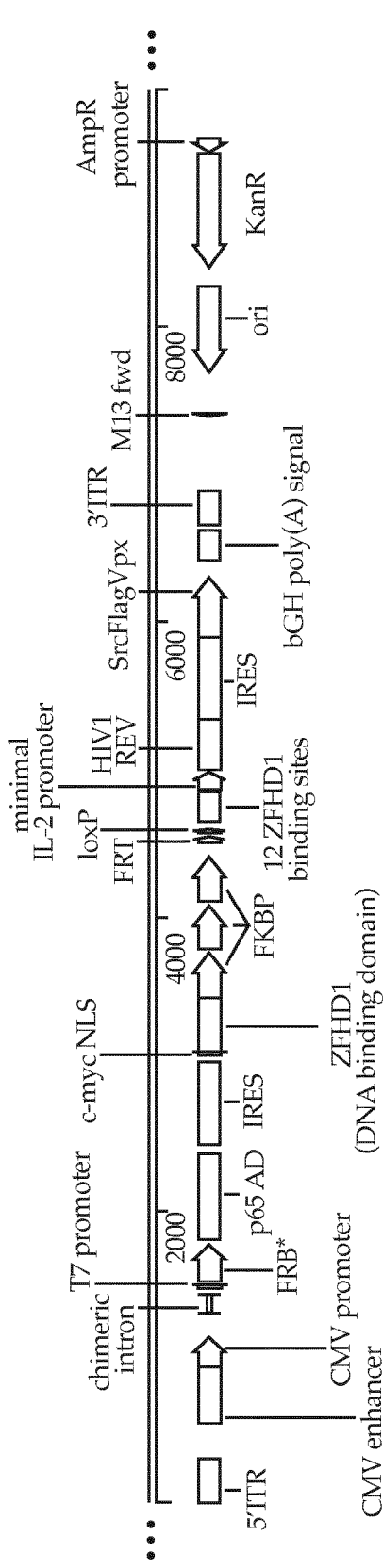


FIG. 3A

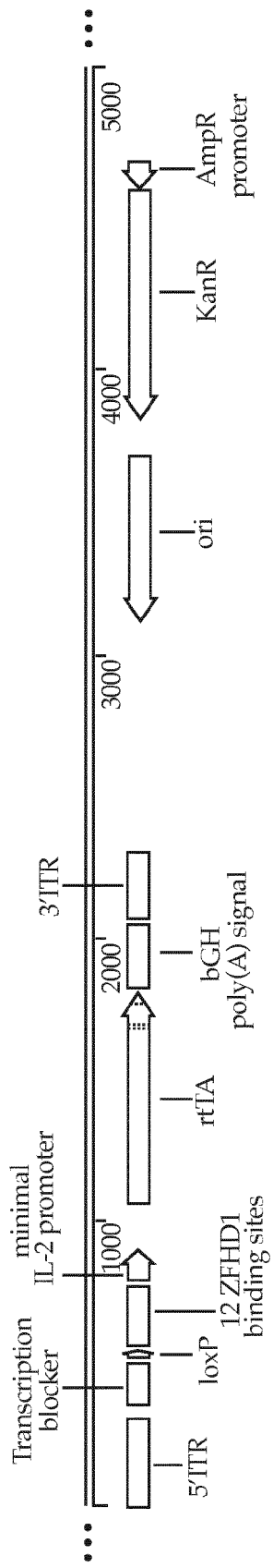


FIG. 3B

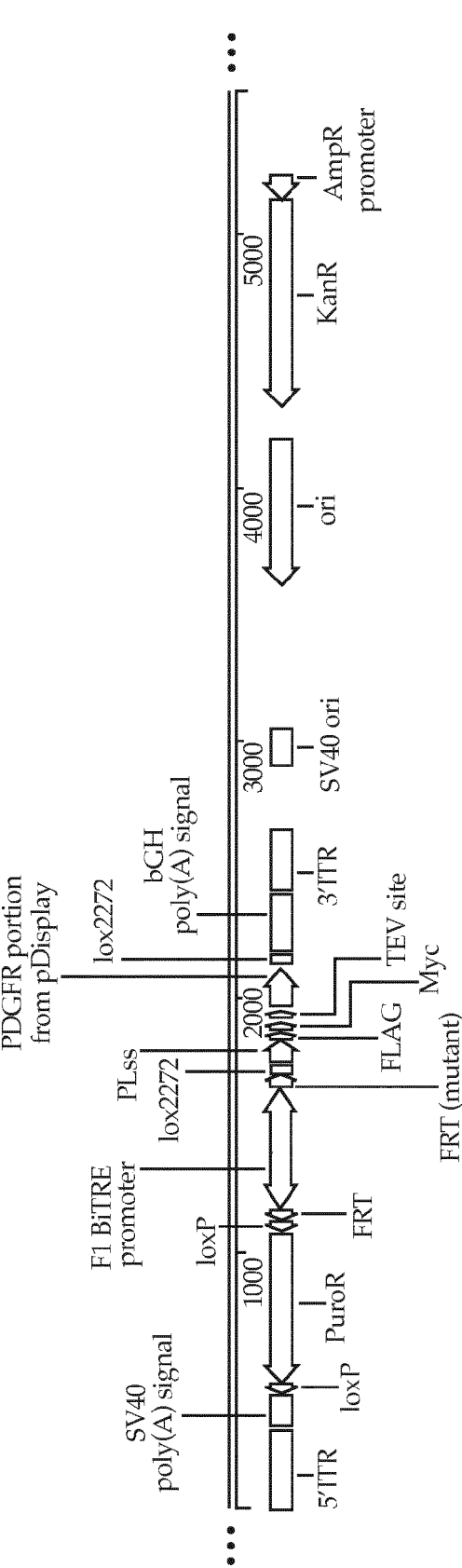


FIG. 3C



FIG. 3D

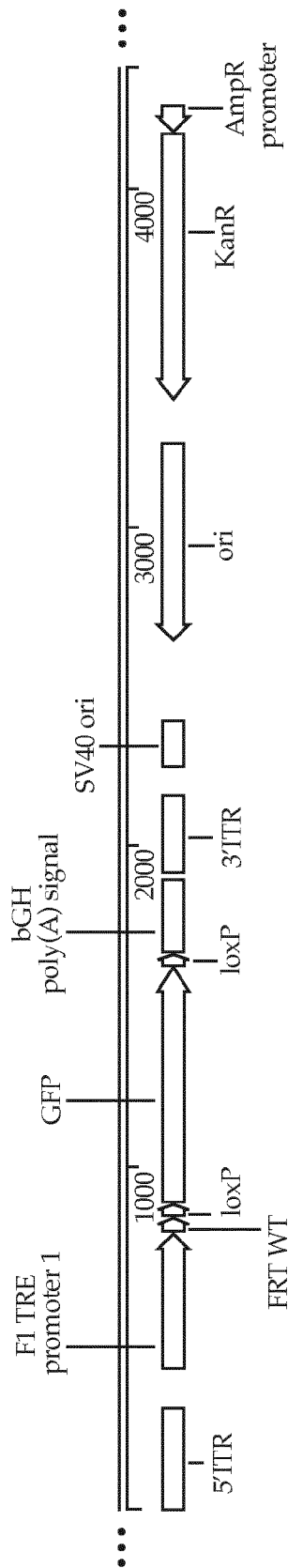


FIG. 3E

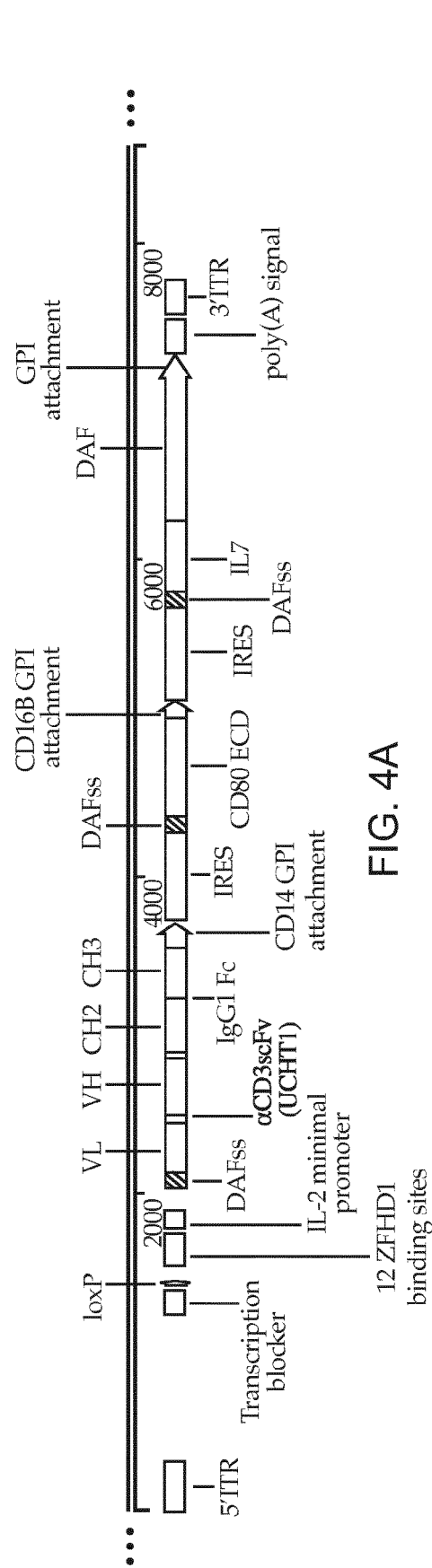


FIG. 4A

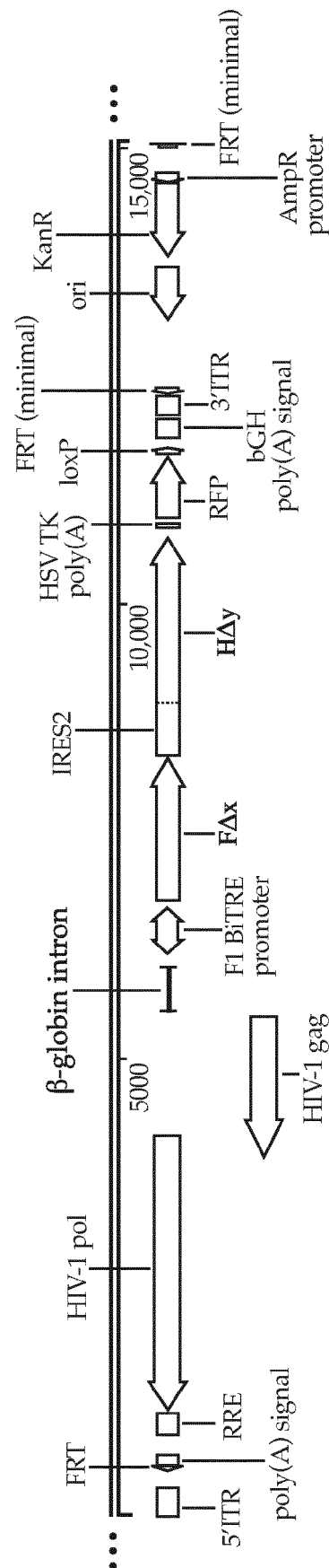


FIG. 4B

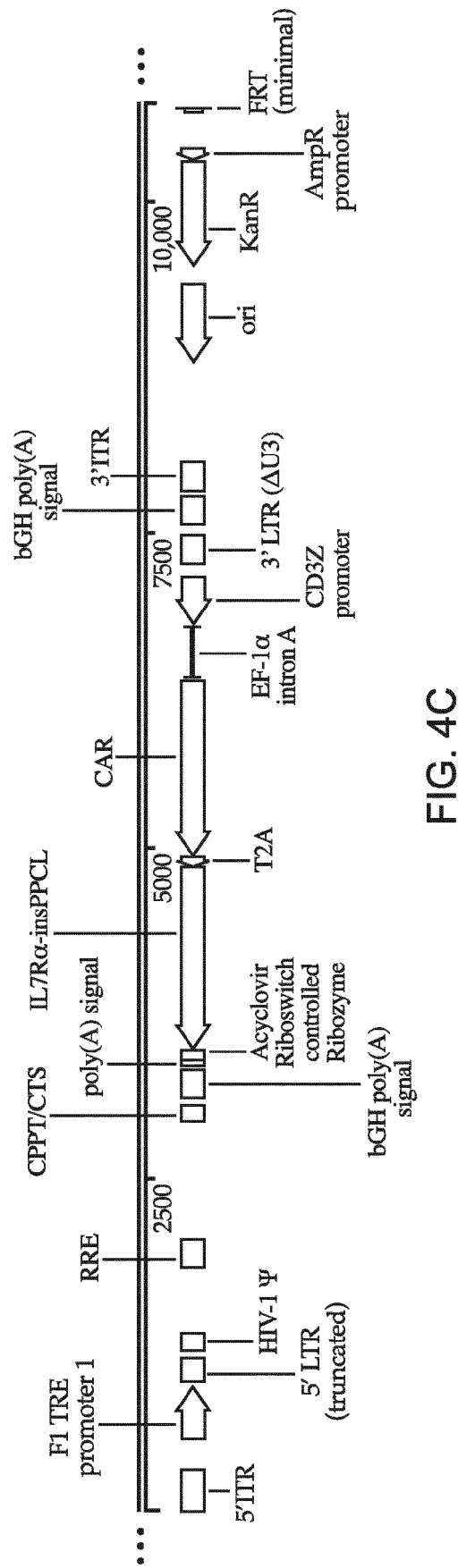
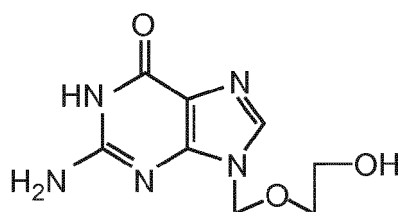
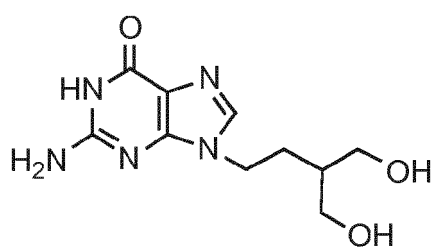


FIG. 4C



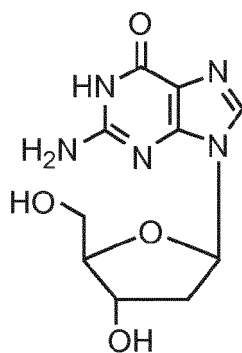
Acyclovir

FIG. 5A



Penciclovir

FIG. 5B



2'-Deoxyguanosine

FIG. 5C

aaaaaaaaataaaatcaatagcaaatattaagatttttaagaaataaaaaattaatattaatttacaactgaatataaaagaaactta
tacagggtagcataatgggctactgaccccgccctcaaacctatttggagactataagtgaaaaaccactctttaattatta
aagtttcttttatgtccaaaagacaagaagaactttttatttagttgaatttataataagagaaaaagaaaggatattatATGGC
AAAAATAAAAAACCAATATTACAACGAGTCTGTTTCGCCAATTGAATATGCGCAACAAGGATTTA
AAGGAAAAATGCGTTCAGTAAACTGAAACGTAGTAAATGATGAAAAAGATTTAGAGGTATGAAAT
AGAATTACACAAAACCTTCTGATTGCCTGAAAAAATTCCAGTTTCAAATGATTTAACTTCATGAAGA
ACTTTGACACCAGAATGACAAGAATTAATTACAAGAACTTTTACAGGATTAACATTGTTAGATACA
ATTCAAGCTACTGTTGGTGATGTGGCTCAAGTTCCTAACTCATTAACCTGACCATGAACAAGTAATT
TACACAAACTTTGCATTTATGGTTGCAGTTCACGCTAGATCATATGGTTCAATCTTTTCAACTTTAT
GTTCAAGTGAACAAATTGAAGAGGCTCATGAATGAGTTATCAATACAGAAACATTACAAGAAAGA
GCTAAAGCATTAAATTCCTTATTATGTGAATGATGACCCTTTAAAGTCAAAAGTTGCAGCTGCTTTA
ATGCCAGGCTTCTTATTATATGGAGGCTTCTATTTACCATTTTACCTATCAGCTAGAGGTAAATTACC
AAACACTTCAGATATTATTAGATTAATATTAAGAGATAAAAGTTATACATAACTACTATAGTGGTTATA
AATATCAAAAGAAAGTTGCTAAACTTTCTCCAGAAAAACAAGCTGAAATGAAAGAATTTGTTTTT
AAATTATTATATGAATTAATAGATTTAGAAAAAGCTTATTTGAAAGAATTGTATGAGGATTTTGGATT
AGCTGATGATGCTATTAGATTTAGTGTTTACAACGCAGGTAAATTTTACAAAATTTAGGTTATGAT
TCACCGTTTACAGAAGAAGAAACAAGAATTGAGCCAGAAATATTCACACAATTATCAGCTAGAGC
TGATGAAAACCATGATTTCTTTTCAGGGAATGGCTCATCATATATTATGGGAGTTTCAGAAGAAAC
TGAAGATGACGATTGGGAGTTTtaa (SEQ ID NO:236)

FIG. 6

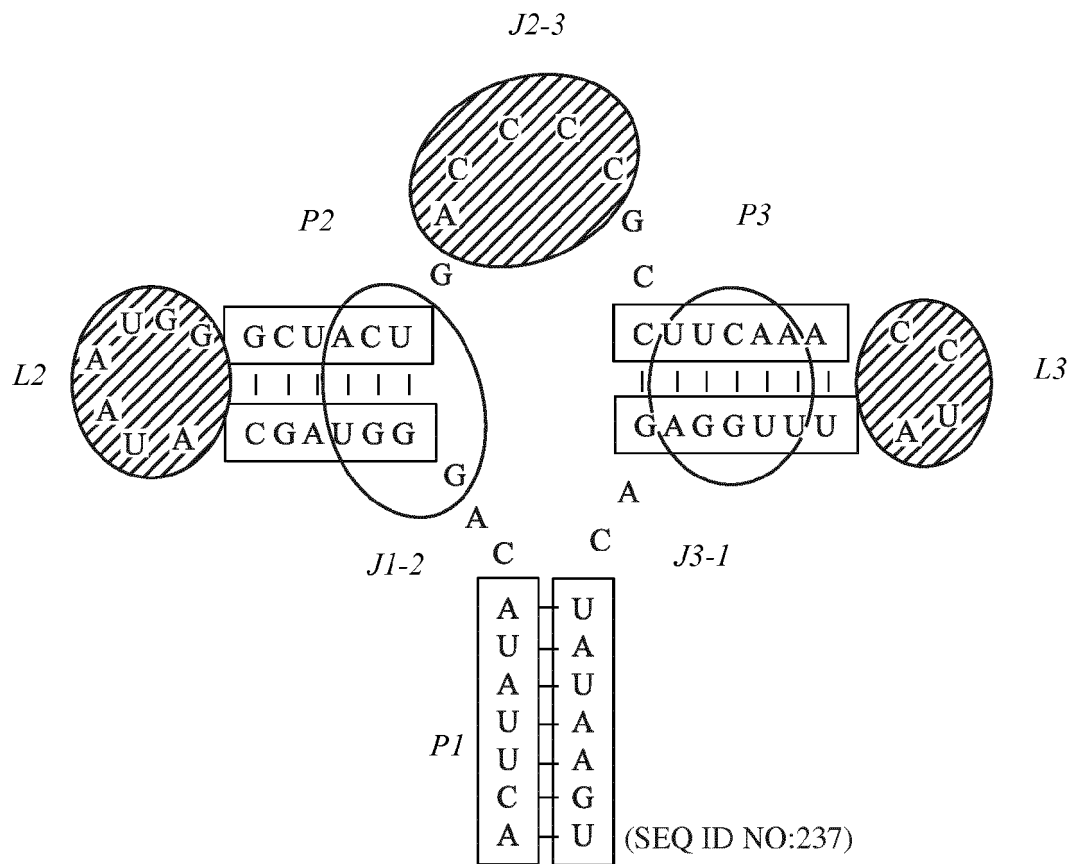


FIG. 7

ACUUAUACA**GGGUA**AGCAUAAUGGGCU**ACU****CA**CCCCGGCC**UUC**AAACCUAUUU**GGAG**GACUAUAAGU
J1-2 L2 J2-3 L3 J3-1
(SEQ ID NO:237)

FIG. 8A

ACUUAUACA**NNNN**AGCAUAAUGGGCU**NNNN****NNNNNNNNNN**GGCC**NNN**AAACCUAUUU**NNNN**GACUAUAAGU
J1-2 L2 J2-3 L3 J3-1
(SEQ ID NO:238)

FIG. 8B

FIG. 9

Oligo library for screen
CGCGCGACACTTATAGTCNNNAATAGGTTNNNGGCNNNNNNNNNNNAGCCCAATTATGCTNNNTGTATAAGTGCCGCC
(SEQ ID NO:239)

T7 promoter amplification primer

TAATACGACTCACTATAGGCGGCACTTATACA (SEQ ID NO:240)

Reverse amplification primer

CGCGCGACACTTATAGTC (SEQ ID NO:241)

tcaaaagcctggcggcgcggtcgtcagactcttttatatcgaatccccttgaaatacgaatgatatctaaaaaac
aaaattaaagtcgggaattttattttcagcctatgcaagagattagaatcttgatataatttattacaatataatagg
aacactcatataatcgcggtggatatggcagcaagtttctaccgggcaccgtaaatgtccgactatgggtg
agcaatggaaccgcacgtgtacggttttgtgatatcagcattgcttctttatttgagcgggcaatgctttttta
tttcataacggaggttagacaggATGGAAGCACTGAAACGGAAAATAGAGGAAGAAGGCGTC
GTATTATCTGATCAGGTATTGAAAGTGGATTCTTTTTTGAATCACCAAATTGATCCGCTG
CTTATGCAGAGAATTGGTGATGAATTTGCGTCTAGGTTTGCAAAAGACGGTATTACCAA
AATTGTGACAATCGAATCATCAGGTATCGCTCCCGCTGTAATGACGGGCTTGAAGCTG
GGTGTGCCAGTTGTCTTCGCGAGAAAGCATAAATCGTTAACTCACCAGCAACTTGC
TGACAGCGTCTGTTTATTCTTTACGAAGCAAACAGAAAGCCAAATCGCAGTGTCTGG
GACCCACCTGTCGGATCAGGATCATGTGCTGATTATCGATGATTTTTTGGCAAATGGAC
AGGCAGCGCACGGGCTTGTGTGCGATTGTGAAGCAAGCGGGAGCTTCTATTGCGGGAA
TCGGCATTGTTATTGAAAAGTCATTTACGCCGGGAAGAGATGAACTTGTA AAACTGGG
CTACCGAGTGGAATCTTTGGCAAGAATTCAGTCTTTAGAAGAAGGAAAAGTGTCTTTC
GTACAGGAGGTTTCATTCatga (SEQ ID NO:242)

FIG. 10

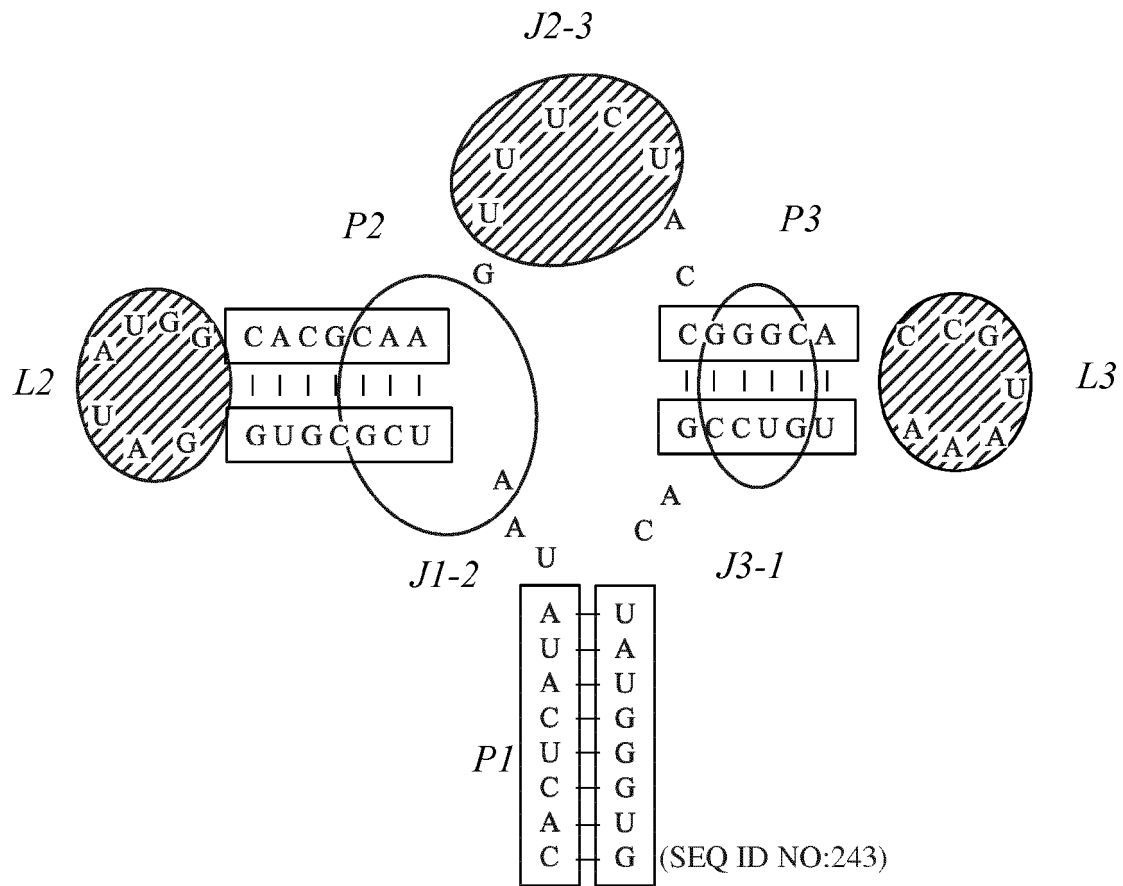


FIG. 11

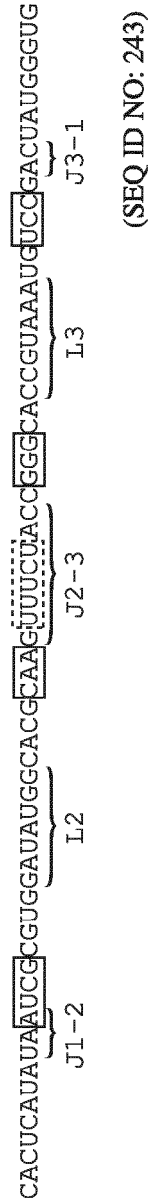


FIG. 12A

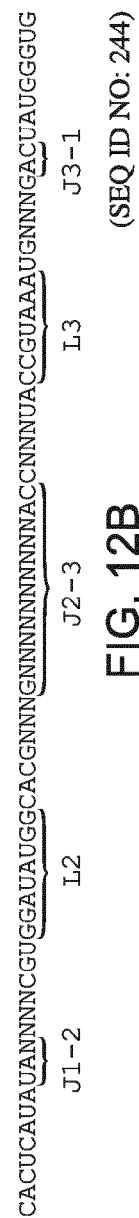


FIG. 12B

FIG. 13

Oligo library for screen

CGCGGACCAACCACATAGTCNNNCATTACGGTGNNGGTNNNNNNNNNNNNNNCGTGCCATATCCACG
NNNTATATGAGTGCGCGCCC (SEQ ID NO:245)

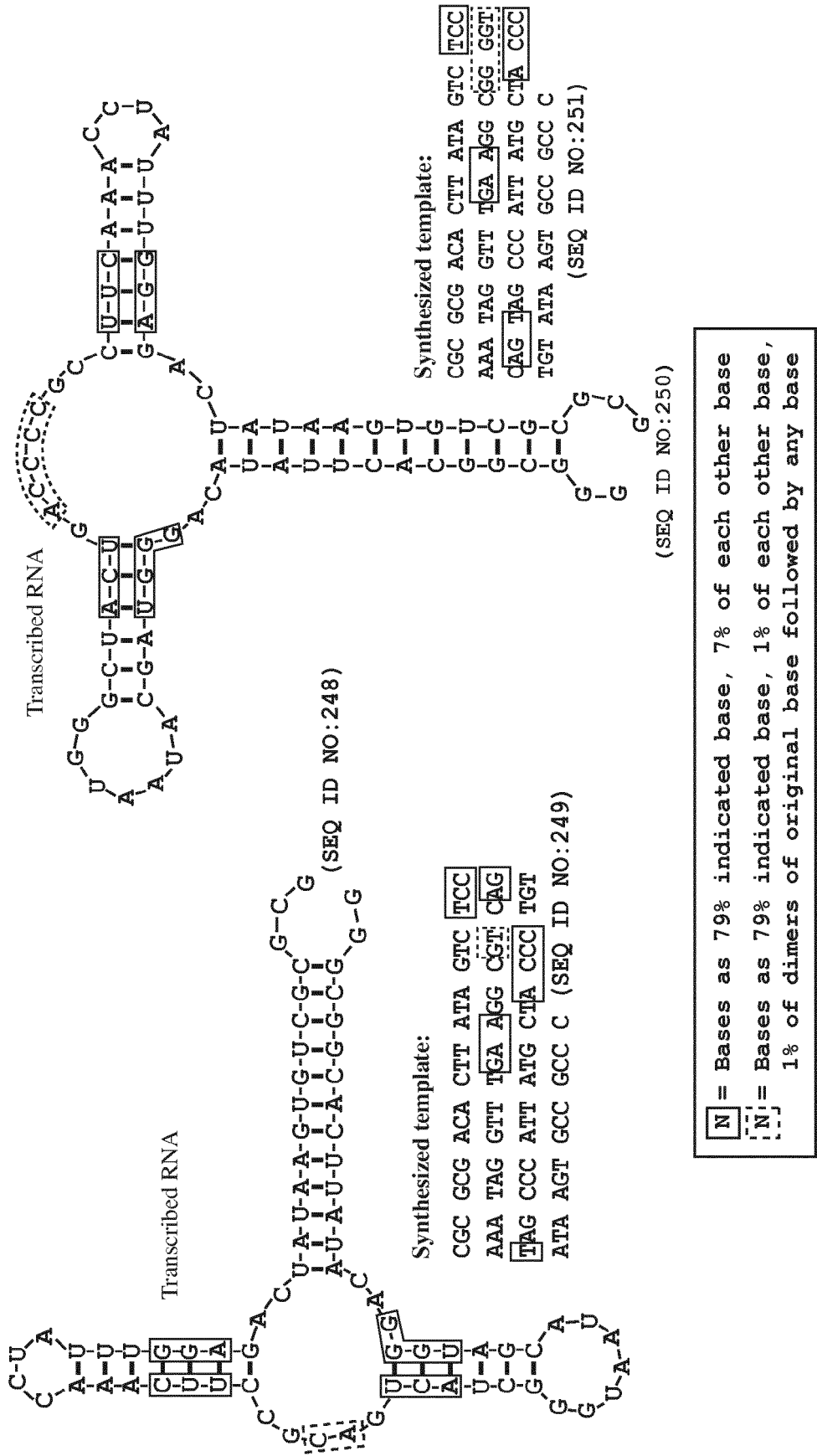
T7 promoter amplification primer

TAATACGACTCACTATAGGCGGCCCACTCATATA (SEQ ID NO:246)

Reverse amplification primer

CGCGGACCAACCACATAGTC (SEQ ID NO:247)

FIG. 14



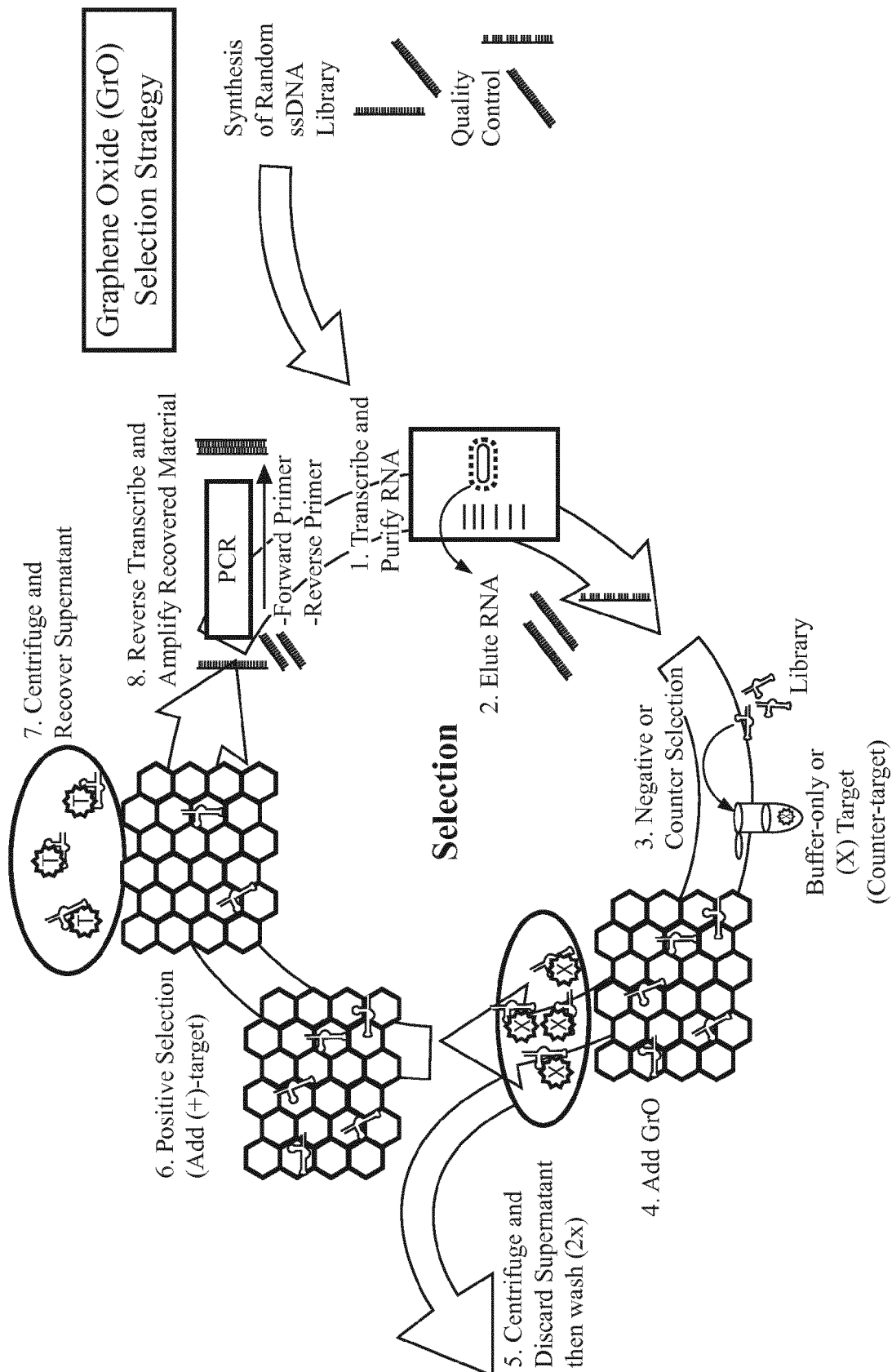


FIG. 15

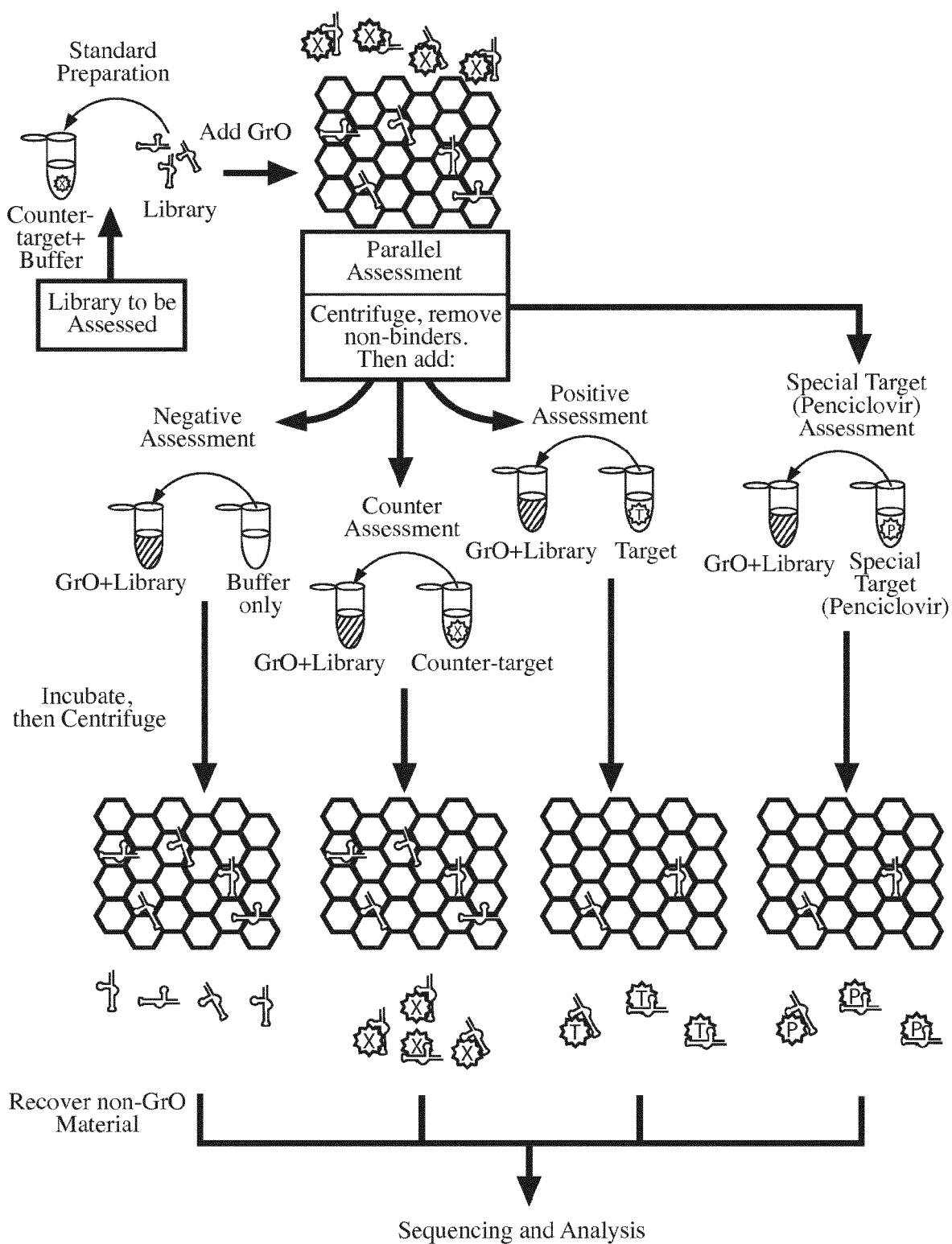


FIG. 16

F1A-795	F1A-996	F1A-935	F1A-946	F1A-961	F1A-769	F1A-582
$\Delta G = -23.30$ kcal/mol	$\Delta G = -25.50$ kcal/mol	$\Delta G = -25.40$ kcal/mol	$\Delta G = -25.10$ kcal/mol	$\Delta G = -27.40$ kcal/mol	$\Delta G = -23.70$ kcal/mol	$\Delta G = -23.10$ kcal/mol
Sequence (5'→3'): GGG CGG CAC UUA UAC AGC GAA GCA UAA UGG CUA CUG ACG CCC UCA AAC CCU AUU UGC AGA CUA UAA GUG UCG CGC G	Sequence (5'→3'): GGG CGG CAC UUA UAC AGG GUA GCA UAA UGG CUU AGG ACG CCU UCA AAC CUA UCA AGA CUA UAA GUG UCG CGC G	Sequence (5'→3'): GGG CGG CAC UUA UAC AGG GUA GCA UAA UGG GCU ACU UGA CGC CUU CAC CUA UUU GUA GAC UAU AAG UGU CGC GCG	Sequence (5'→3'): GGG CGG CAC UUA UAC AGC GUA GCA UAA UGG GCU ACU GAC GCC GUC AAA CCU AUU UGC AGA CUA UAA GUG UCG CGC G	Sequence (5'→3'): GGG CGG CAC UUA UAC ACC GUA GCA UAA UGG GCU ACU GCC GCC GUC GAC CUU UUG GAG ACU AUA AGU GUC GCG CG	Sequence (5'→3'): GGG CGG CAC UUA UAC AGG UCA GCA UAA UGU GCU AGU GCG CCU UCA AAC CUA UUU AGA GAC UAU AAG UGU CGC GCG	Sequence (5'→3'): GGG CGG CAC UUA UAC AGC UUA GCG UAA UGG CUA CUG ACG CCG UCC AAA CCU AUU UAC AGA CUA UAA GUG UCG CGC G
(SEQ ID NO:87)	(SEQ ID NO:88)	(SEQ ID NO:89)	(SEQ ID NO:90)	(SEQ ID NO:91)	(SEQ ID NO:92)	(SEQ ID NO:93)

FIG. 17

F1P-584 $\Delta G = -24.10$ kcal/mol Sequence (5'→3'): GGG CGG CAC UUA UAC AGG GGA GCA UAA UGG GCU ACU GAC GCC UUU AAA CCU AUU UGA GGA CUA UAA GUG UCG CGC G	F1P-710 $\Delta G = -28.90$ kcal/mol Sequence (5'→3'): GGG CGG CAC UUA UAC AUG GAA GCA UAA UGG GCU GCC GAC GGC CCU UAA CCU UUG GAG ACU AUA AGU GUC GCG CG	F1P-923 $\Delta G = -23.00$ kcal/mol Sequence (5'→3'): GGG CGG CAC UUA UAC AGA UUA GCA UAA UGG GCU ACU GAC CCC GCC GGC AAA CCU AUU UGA AGA CUA UAA GUG UCG CGC G	F1P-991 $\Delta G = -25.00$ kcal/mol Sequence (5'→3'): GGG CGG CAC UUA UAC AGU GUA GCA UAA UGG GCU ACU GUC GCA UCA AAC CUA UUU GGA GAC UAU AAG UGU CGC GCG	F1P-837 $\Delta G = -23.70$ kcal/mol Sequence (5'→3'): GGG CGG CAC UUA UAC AGU GAA GCA UAA UGG GCU ACU GAC ACC CUU AAA CCU AUU UGC AGA CUA UAA GUG UCG CGC G	F1P-718 $\Delta G = -25.00$ kcal/mol Sequence (5'→3'): GGG CGG CAC UUA UAC AGA GUA GCA UAA UGG GCU ACA GAC GCC GUC AAA CCU AUU UAC CGA CUA UAA GUG UCG CGC G	F1P-932 $\Delta G = -27.70$ kcal/mol Sequence (5'→3'): GGG CGG CAC UUA UAC AGG GUG CAU AAU GGG CUA GUG ACG CCU UCA AAC CUA UUU GUA GAC UAU AAG UGU CGC GCG
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(SEQ ID NO:94) (SEQ ID NO:95) (SEQ ID NO:96) (SEQ ID NO:97) (SEQ ID NO:98) (SEQ ID NO:99) (SEQ ID NO:100)

FIG. 18

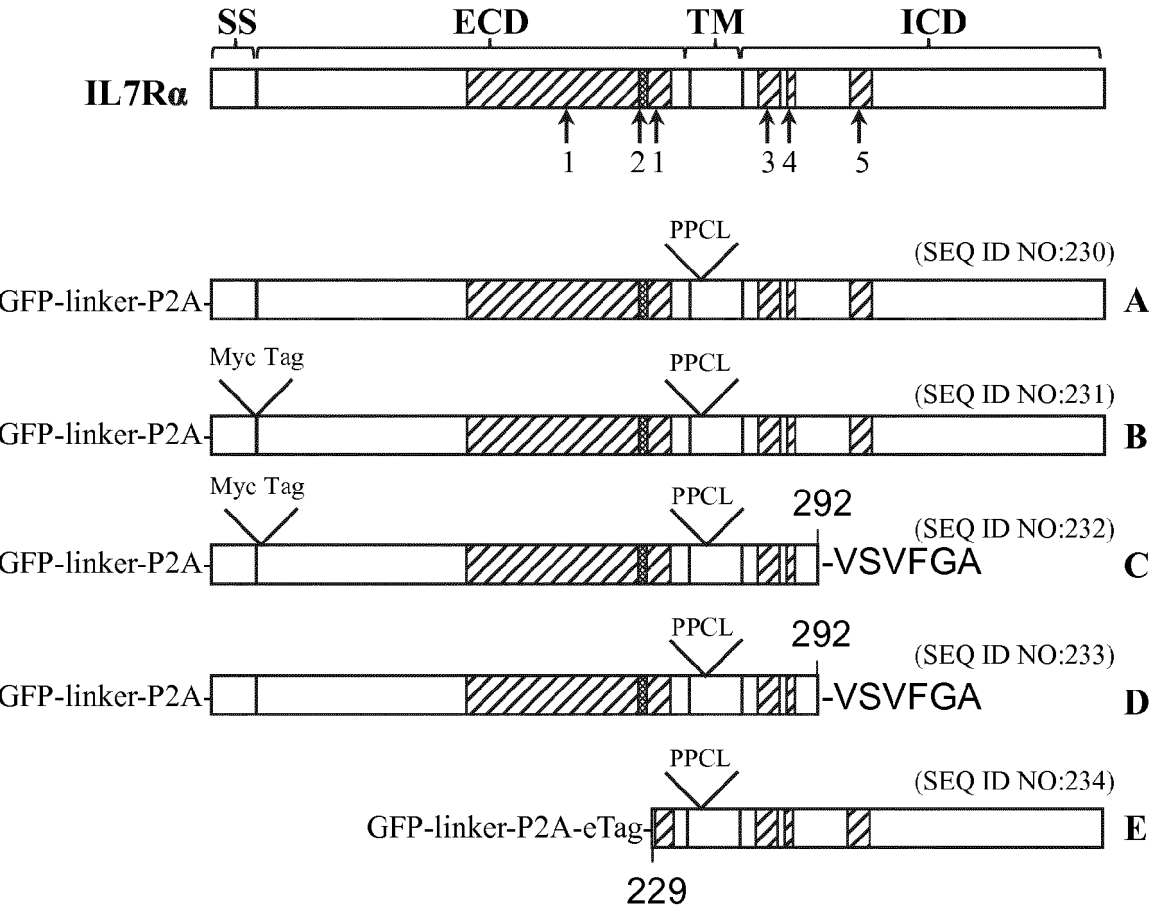


FIG. 19A

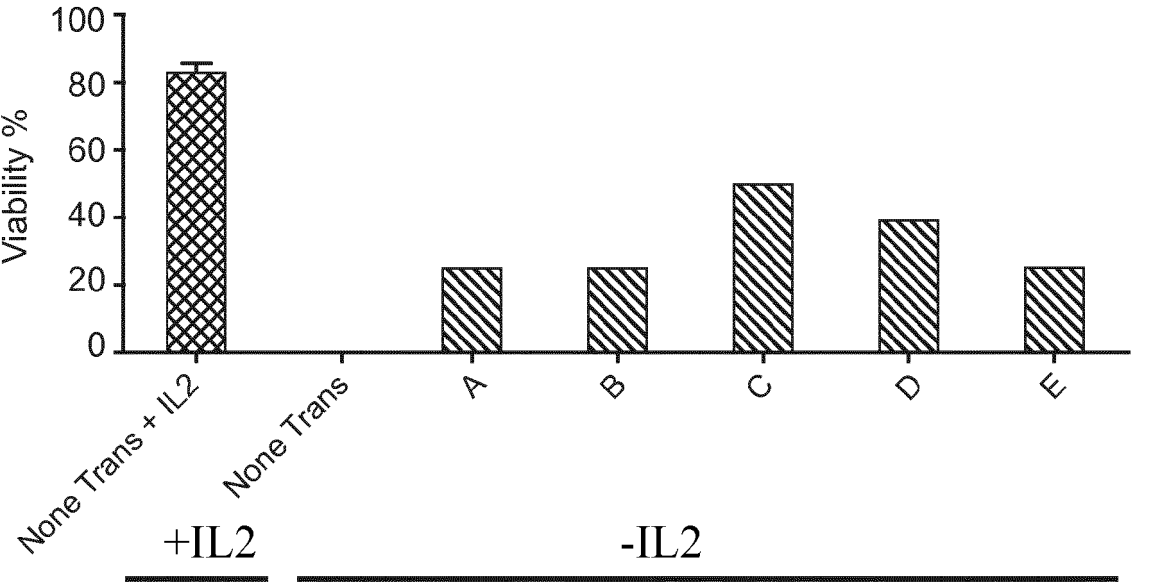


FIG. 19B

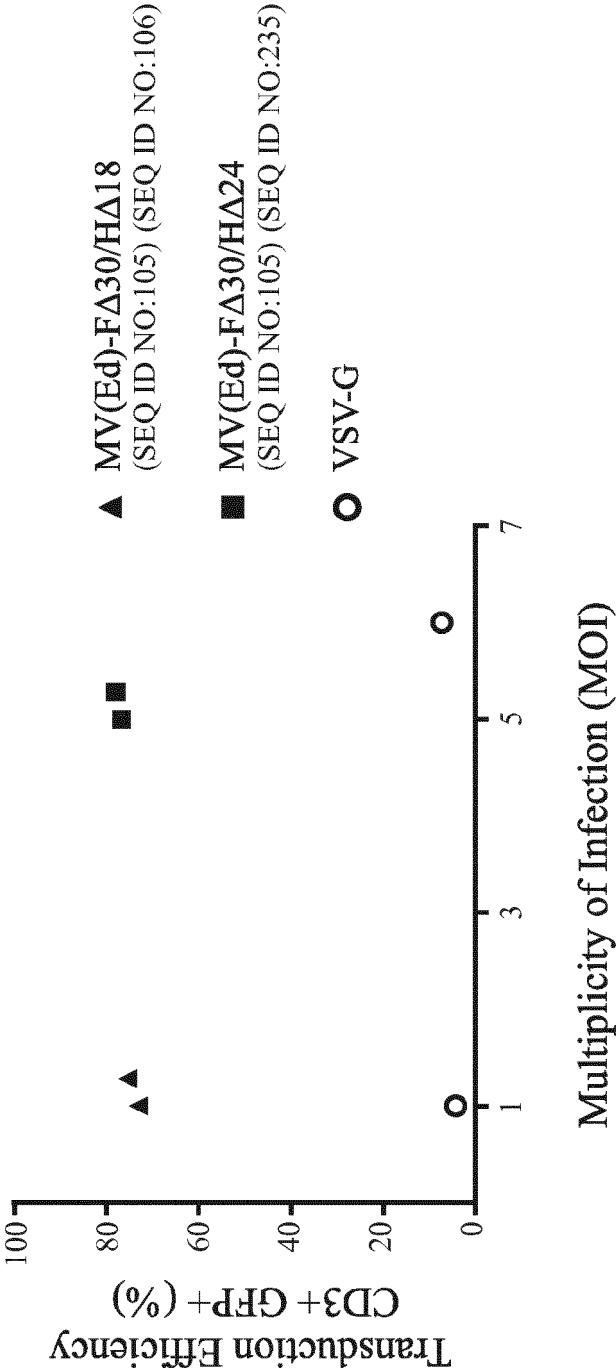


FIG. 20

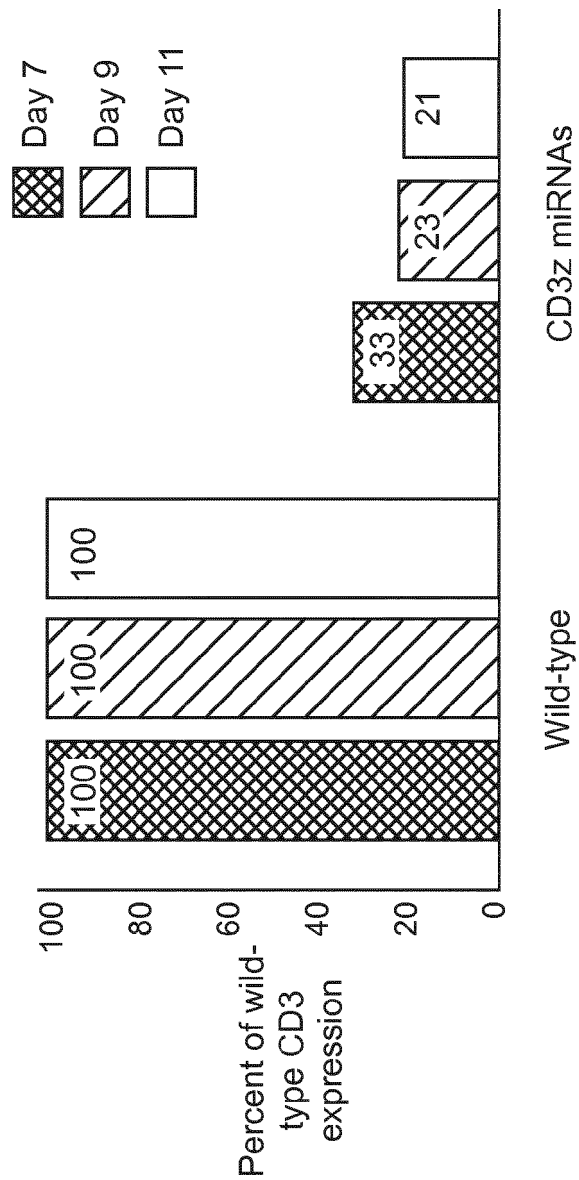


FIG. 21