FIG 1A

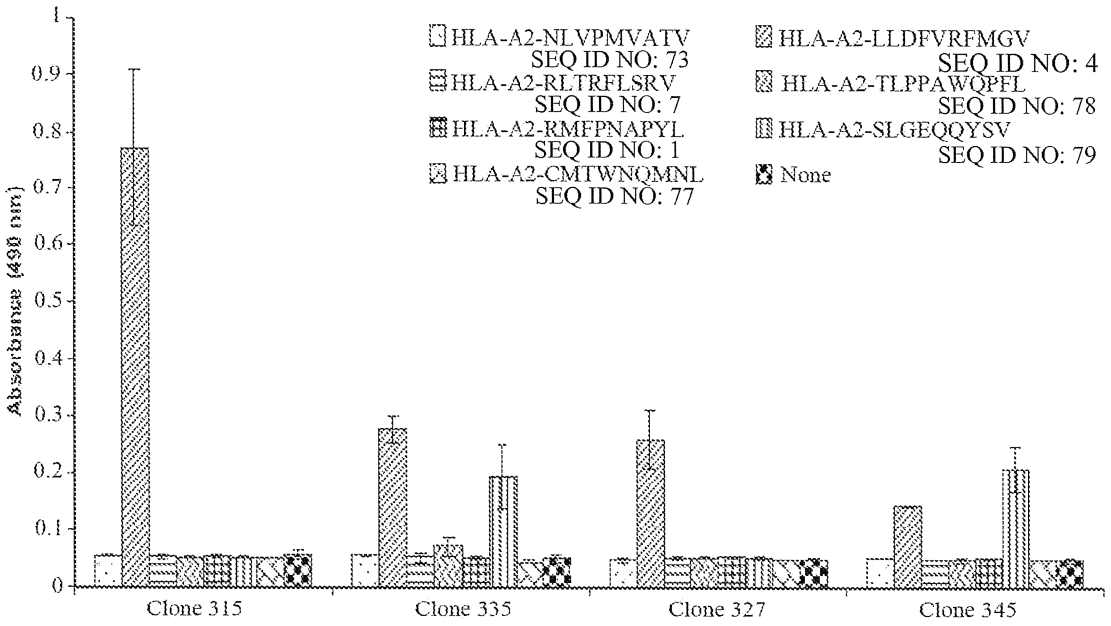


FIG 1B

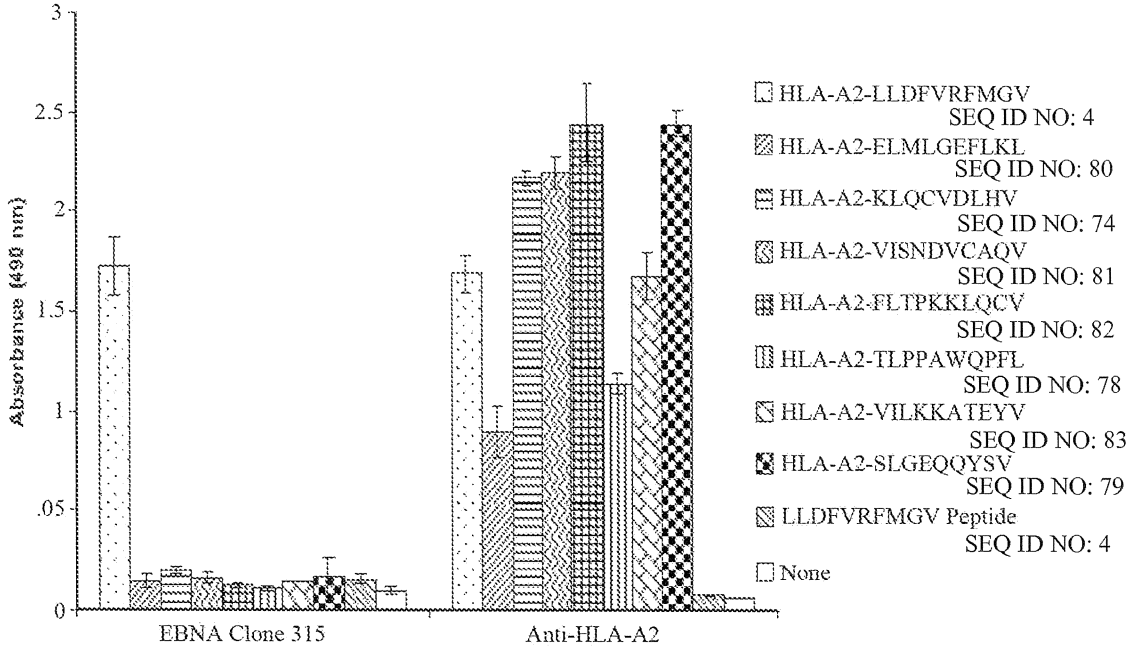


Figure 1

FIG 2A

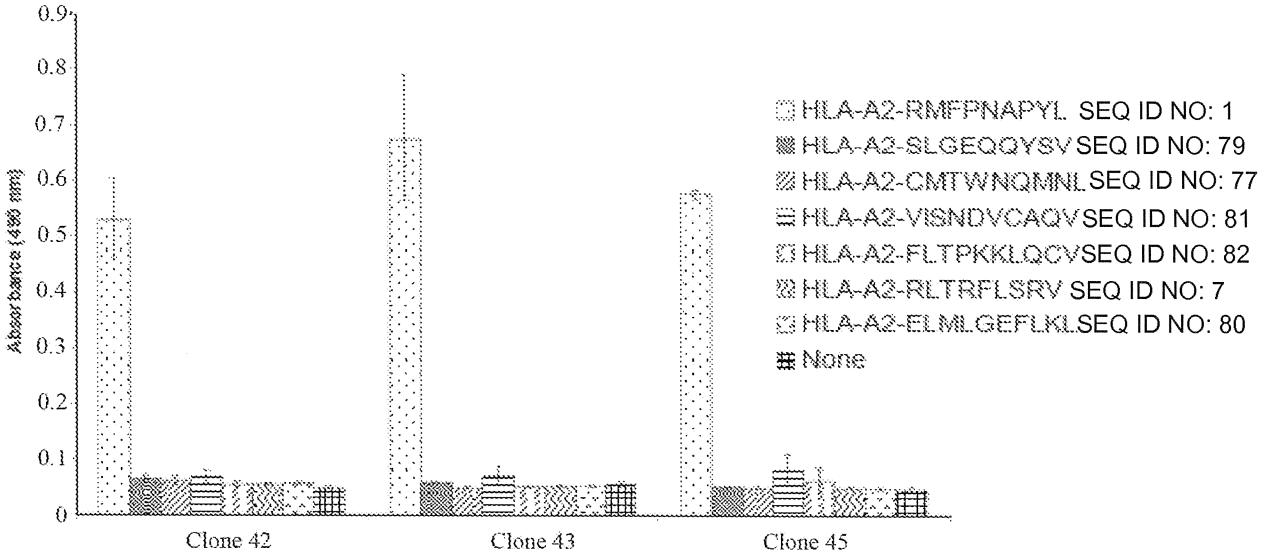


FIG 2B

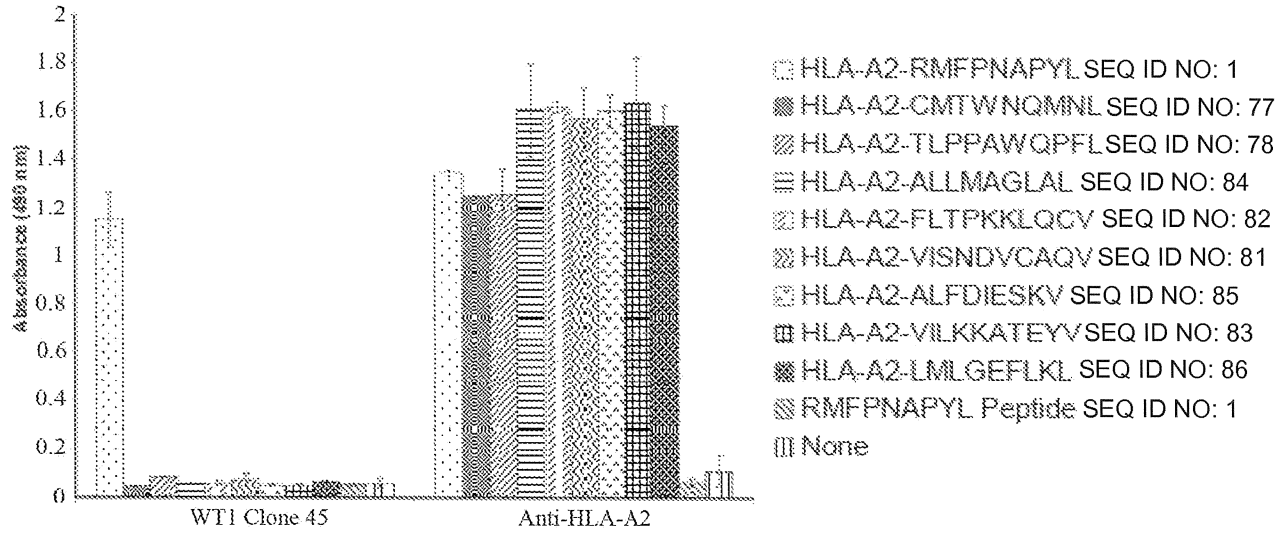


Figure 2

FIG 3A

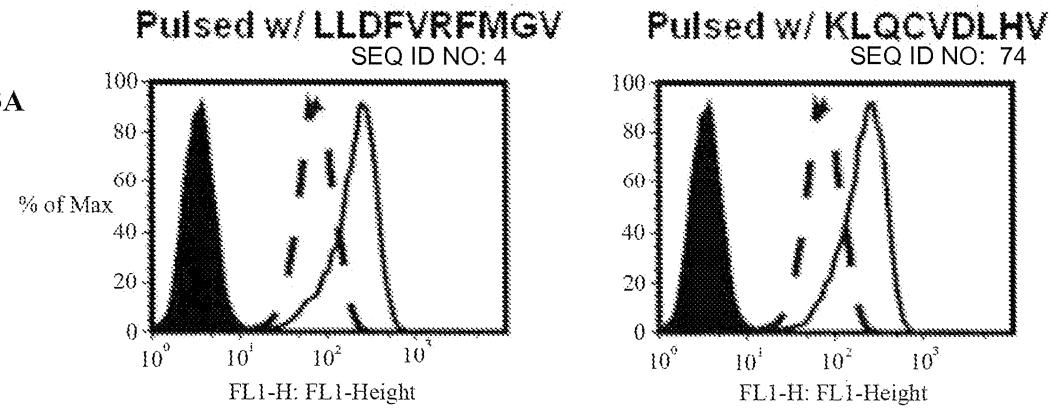


FIG 3B

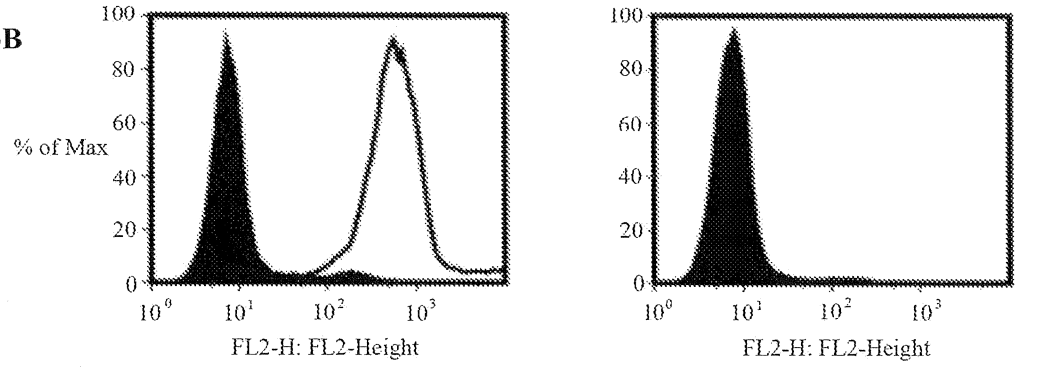


FIG 3C

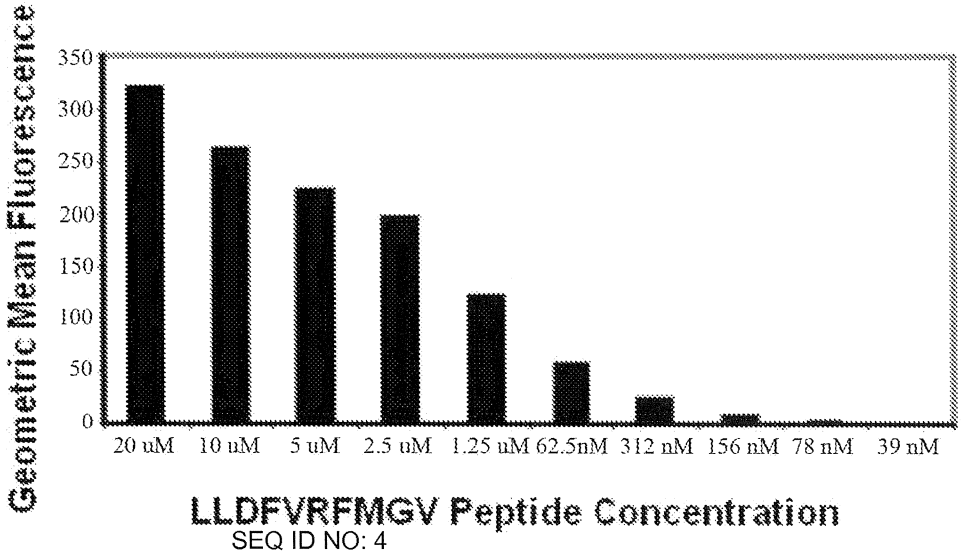


Figure 3

FIG 4A

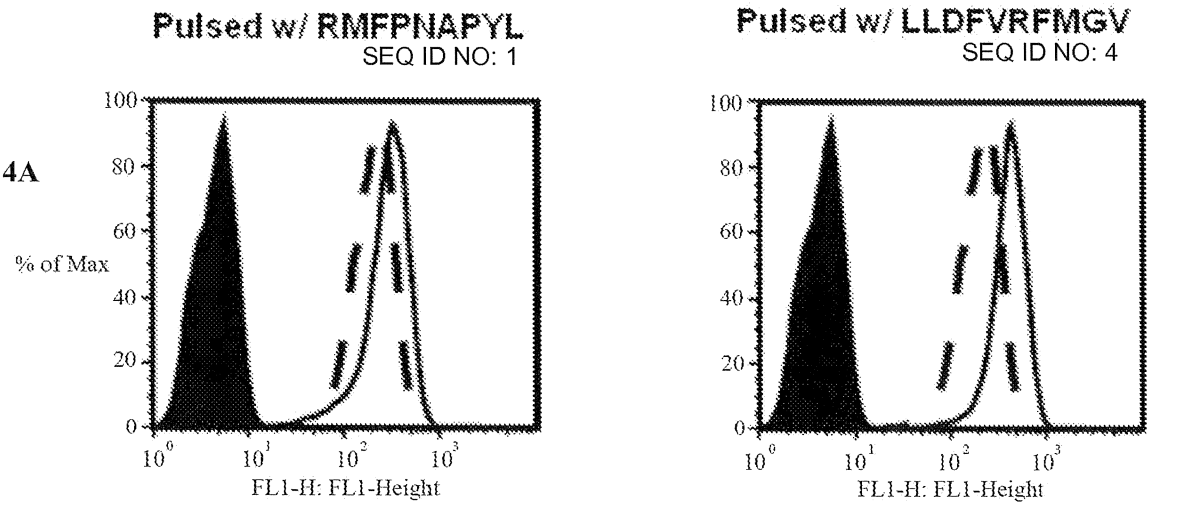


FIG 4B

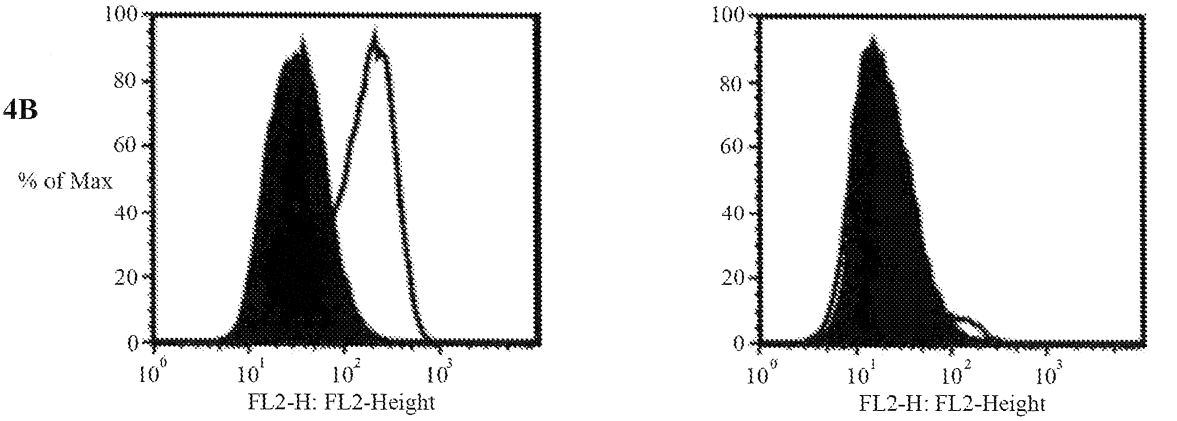


Figure 4

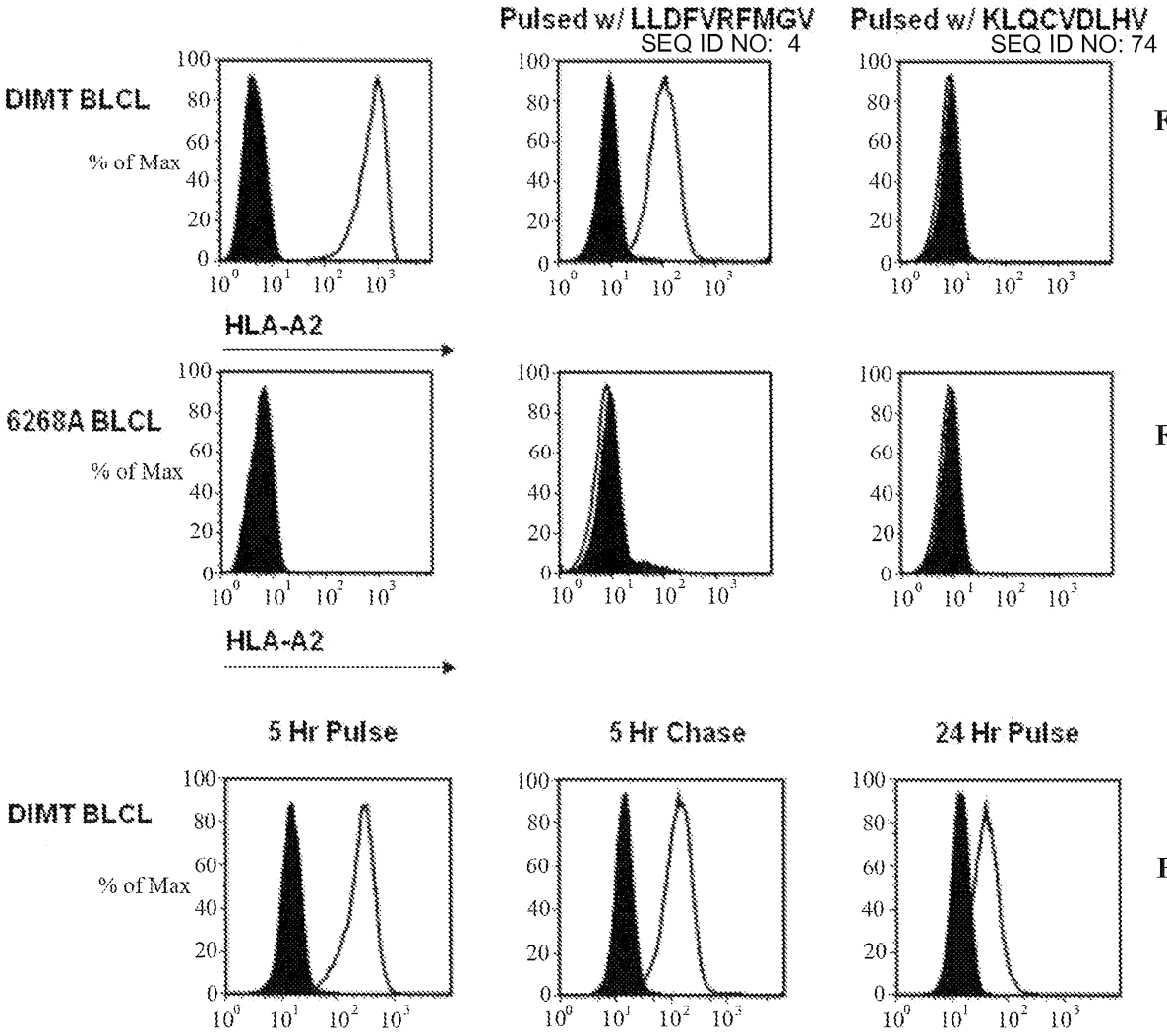

Pulsed w/ LLDFVRFMGV
SEQ ID NO: 4
Pulsed w/ KLQCVDLHV
SEQ ID NO: 74
DIMT BLCL
% of Max
FIG 5A
HLA-A2
6268A BLCL
% of Max
FIG 5B
HLA-A2
5 Hr Pulse
5 Hr Chase
24 Hr Pulse
DIMT BLCL
% of Max
FIG 5C

Figure 5

FIG 6A

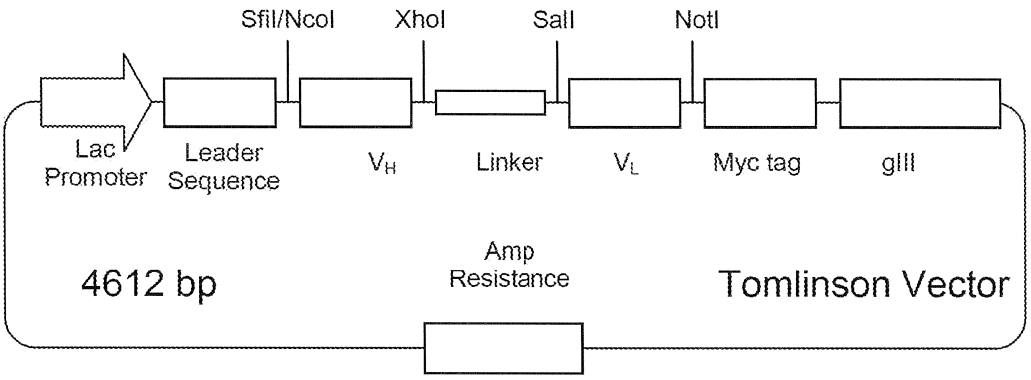


FIG 6B

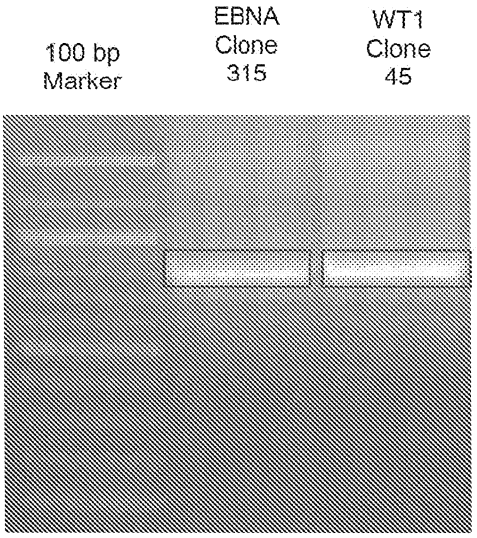


Figure 6

FIG 7A

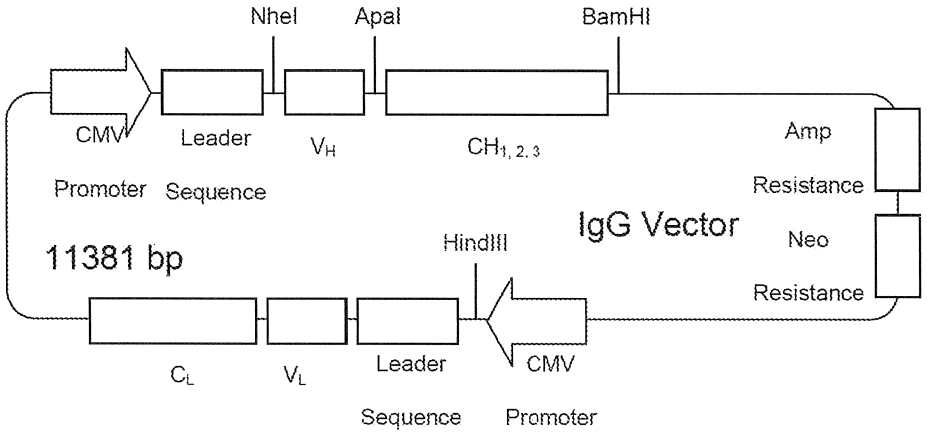


FIG 7B

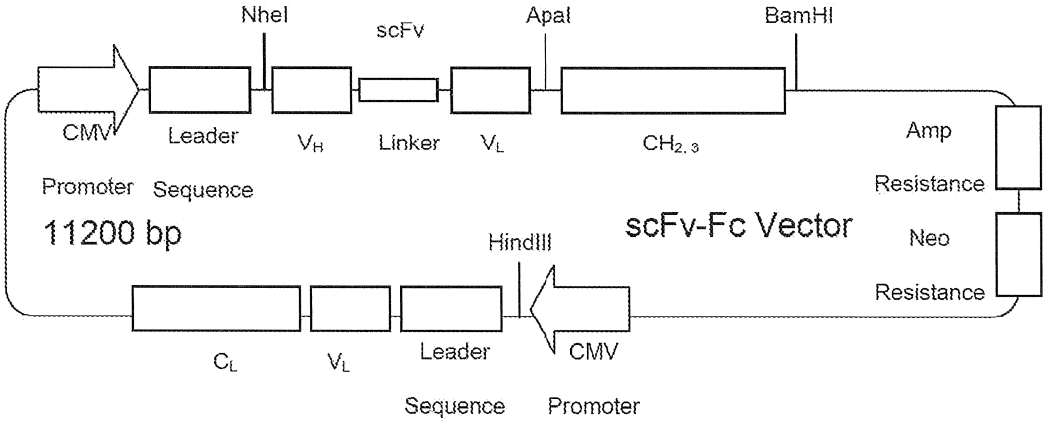


Figure 7

FIG 8A

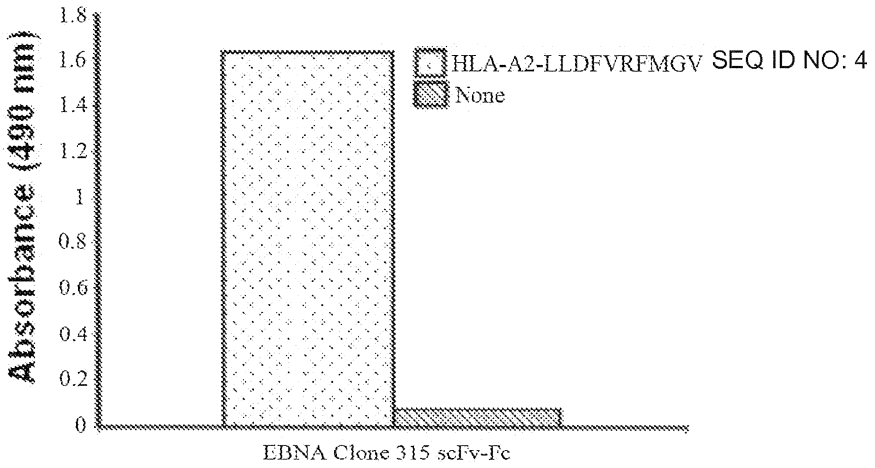


FIG 8B

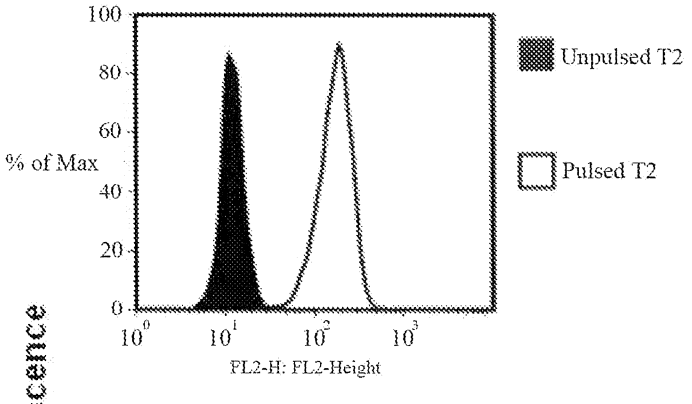


FIG 8C

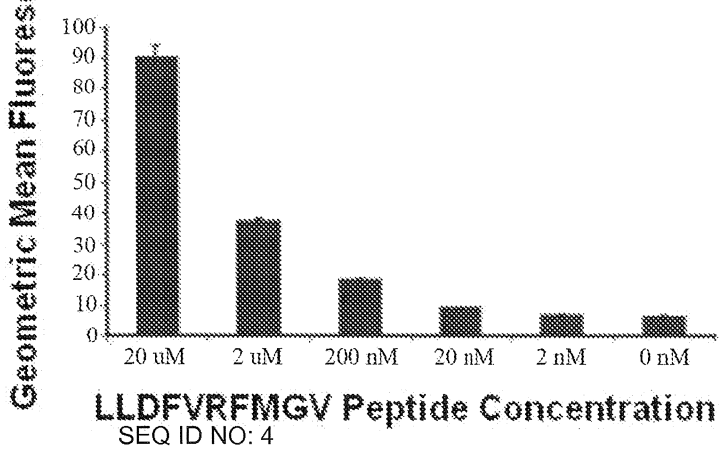
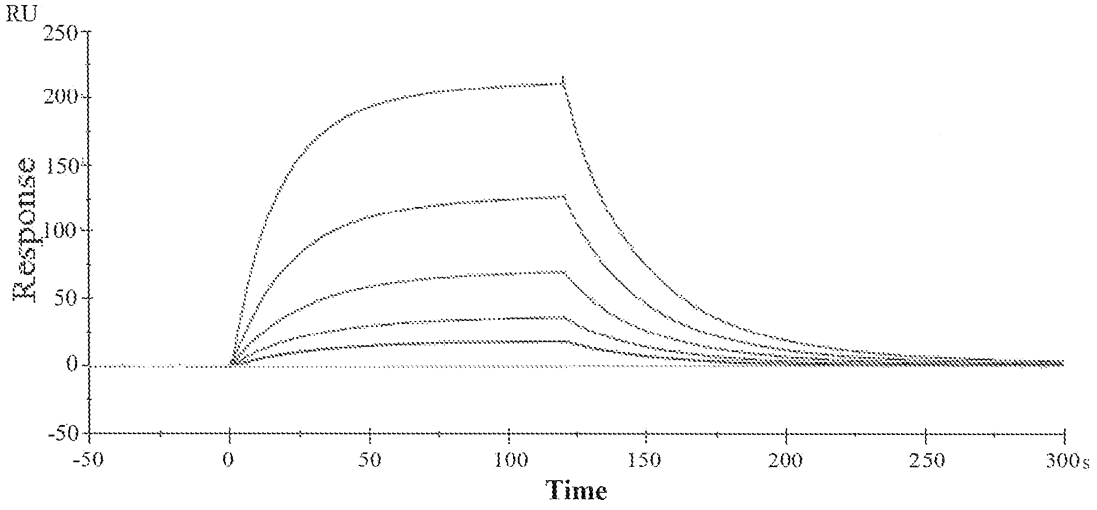


Figure 8



k_{on} (M^{-1} s^{-1}) = 2.361 x 10^{5} k_{off} (s^{-1}) = 6.891 x 10^{-2} K_D (nM) = 291

Figure 9

FIG 10A

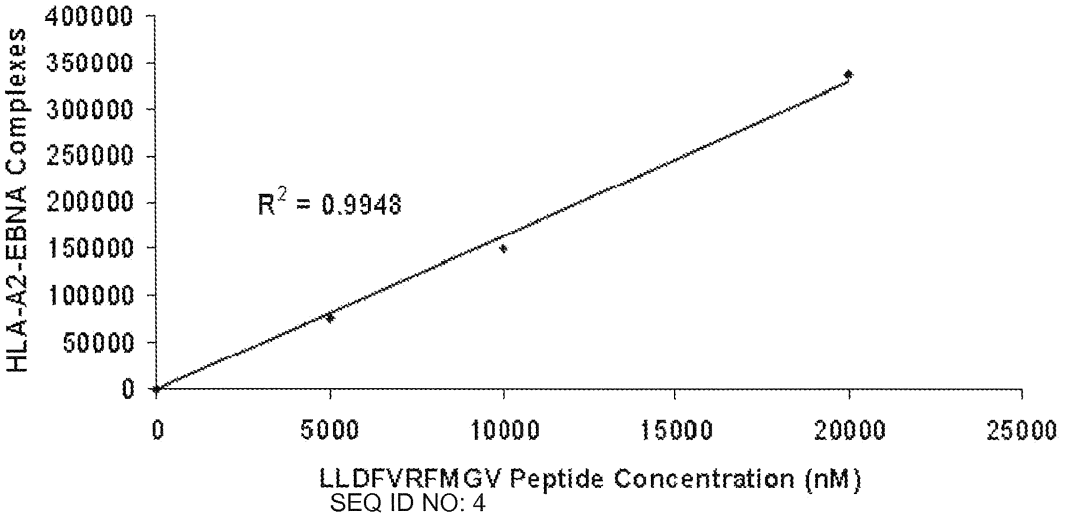


FIG 10B

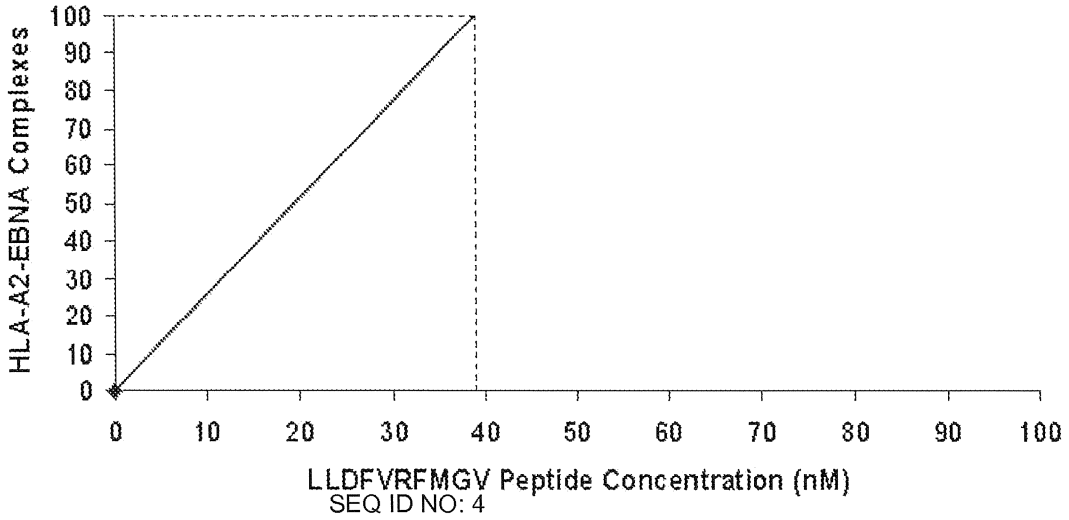


Figure 10

FIG 11A

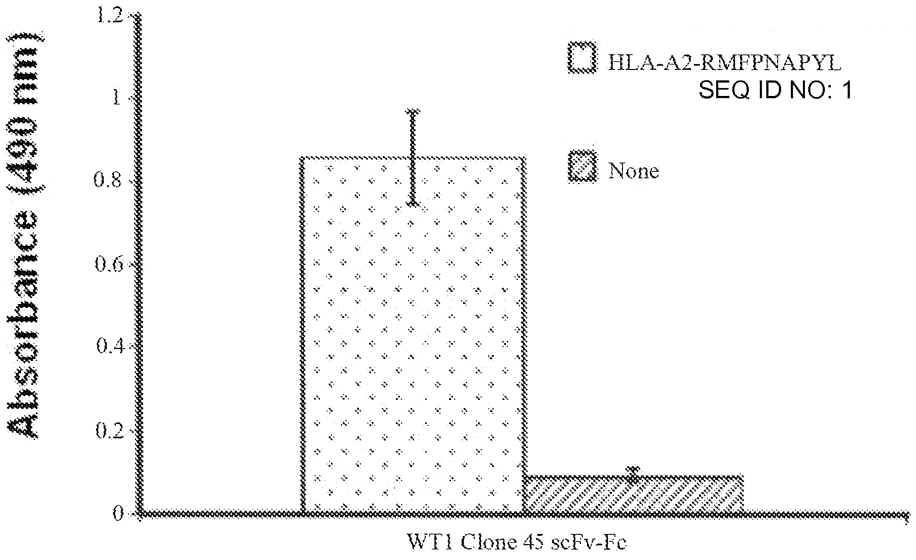


FIG 11B

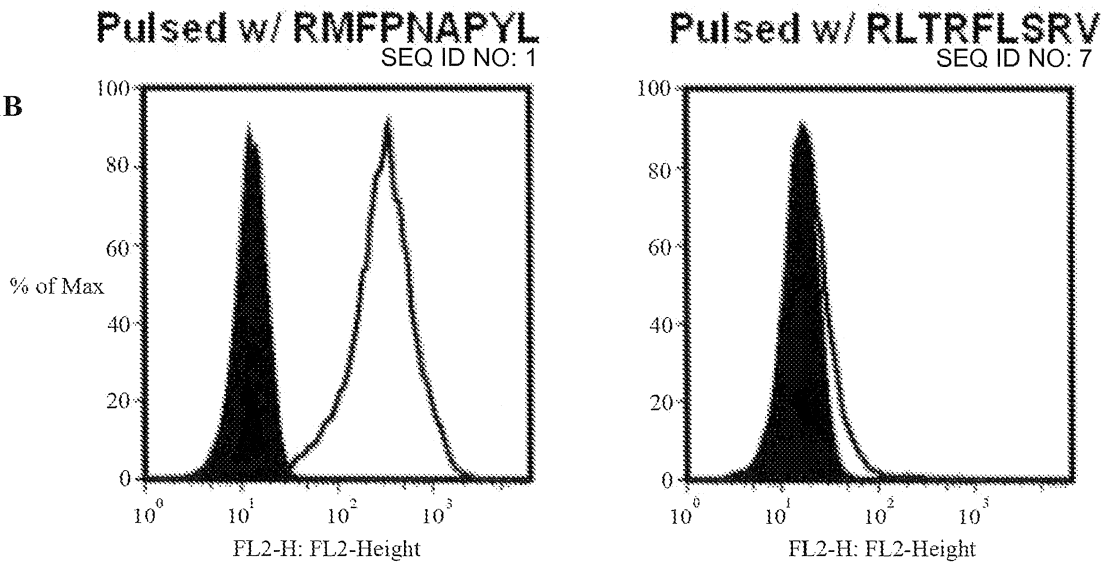


Figure 11

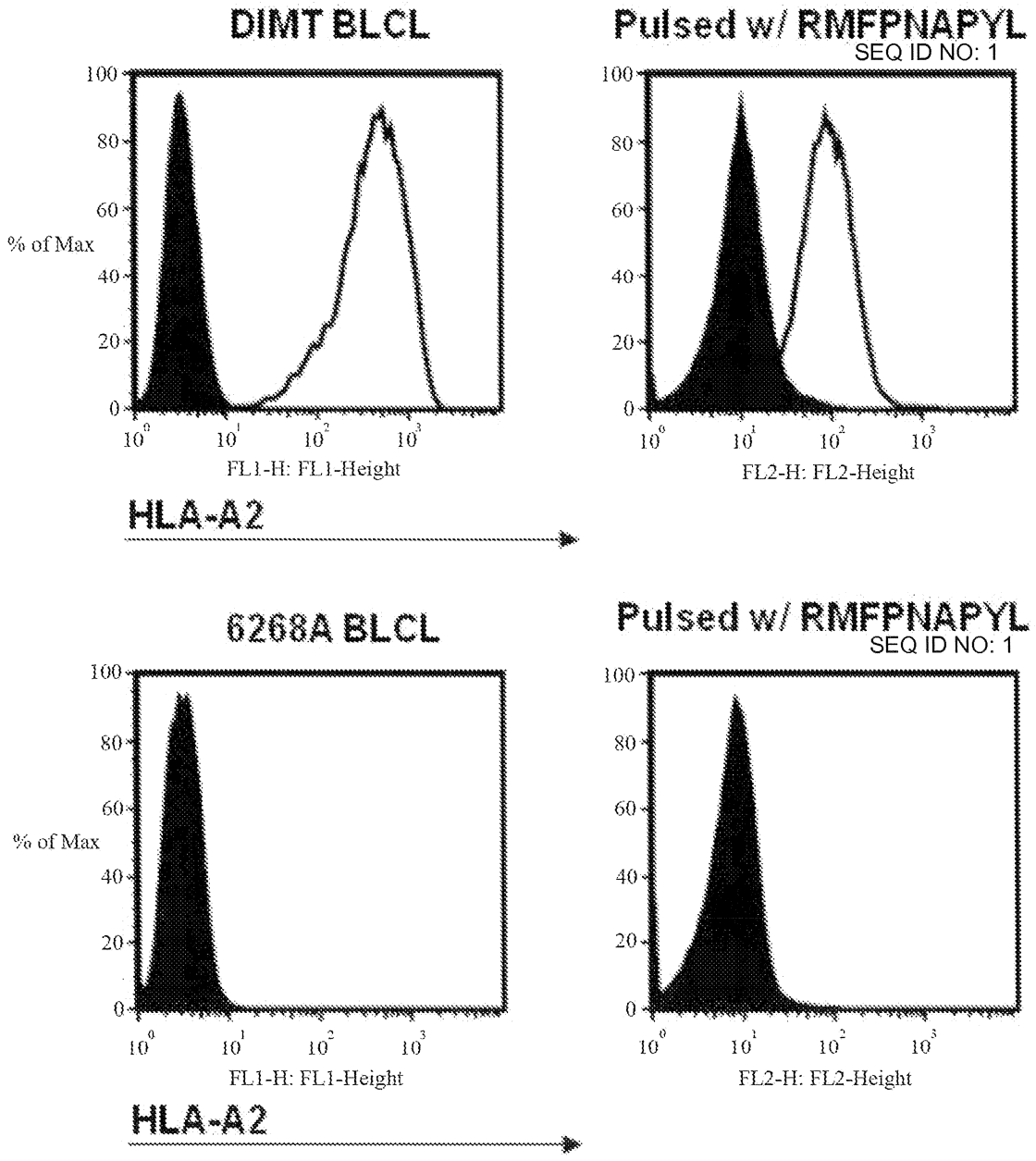

DIMT BLCL
Pulsed w/ RMFPNAPYL
SEQ ID NO: 1
% of Max
100
80
60
40
20
0
10^0
10^1
10^2
10^3
FL1-H: FL1-Height
FL2-H: FL2-Height
HLA-A2
6268A BLCL
Pulsed w/ RMFPNAPYL
SEQ ID NO: 1
% of Max
FL1-H: FL1-Height
FL2-H: FL2-Height
HLA-A2

Figure 12

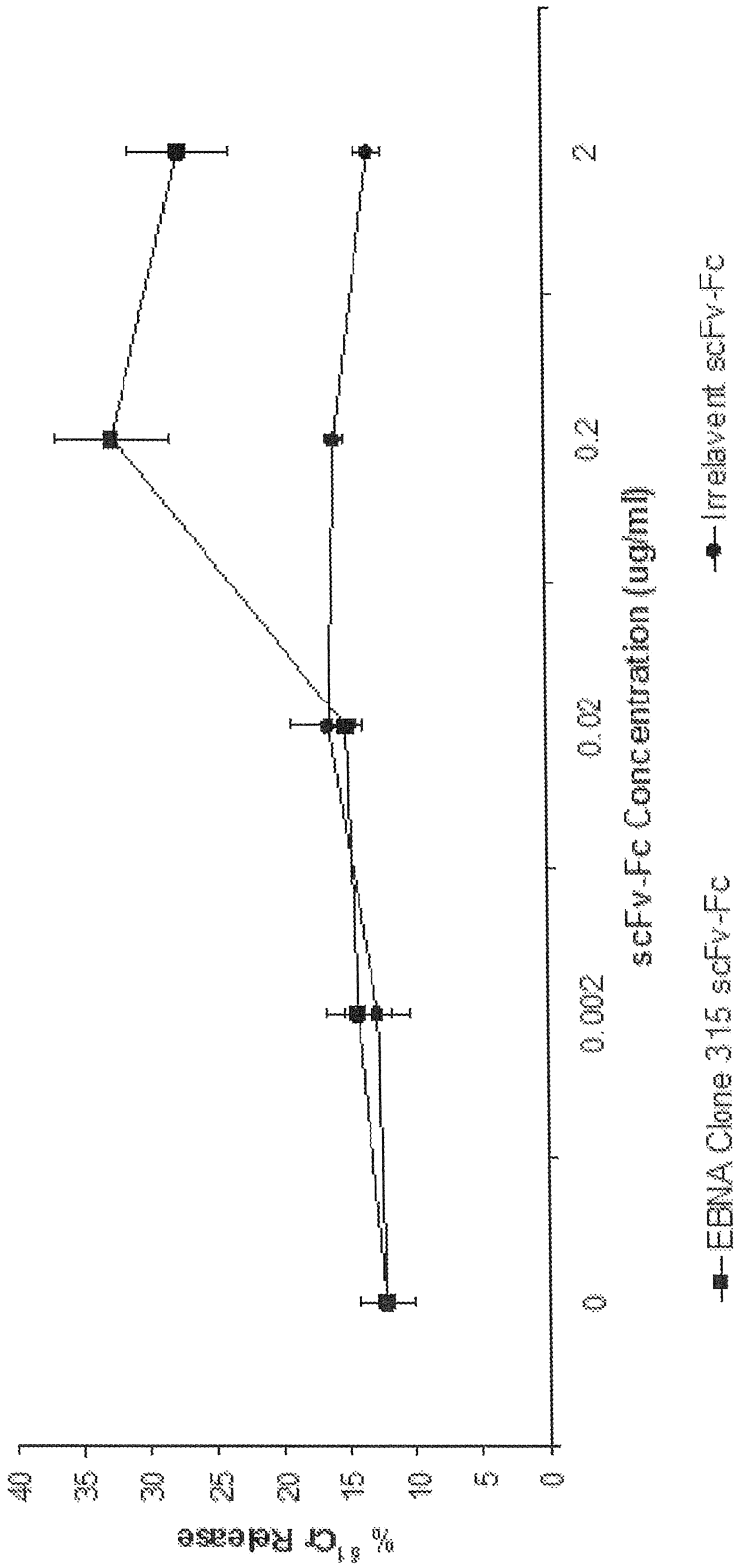

% ^{51}Cr Release
40
35
30
25
20
15
10
5
0
0
0.002
0.02
0.2
2
scFv-Fc Concentration (ug/ml)
EBNA Clone 315 scFv-Fc
Irrelavent scFv-Fc

Figure 13

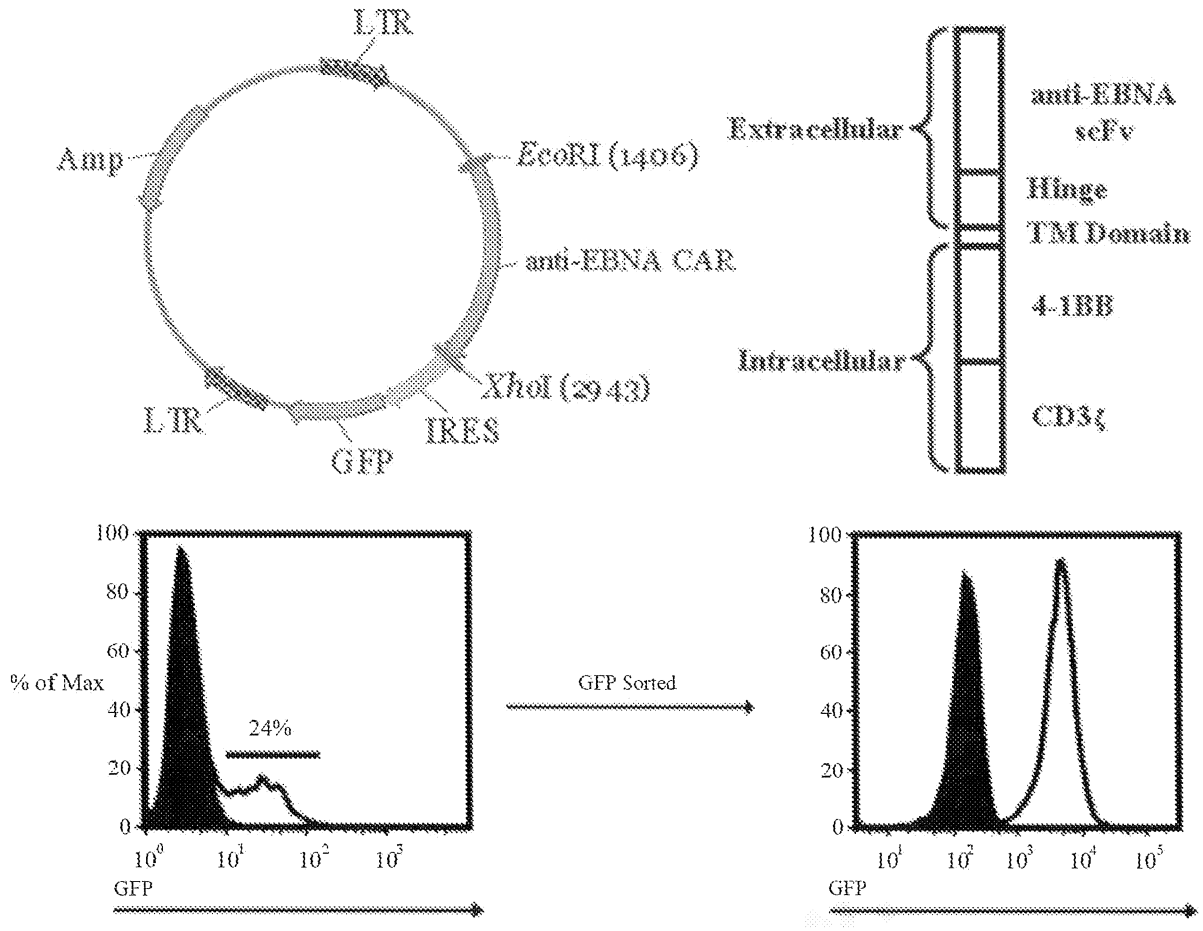

LTR
Amp
EcoRI (1406)
anti-EBNA CAR
XhoI (2943)
LTR
IRES
GFP
Extracellular
anti-EBNA scFv
Hinge
TM Domain
Intracellular
4-1BB
CD3ζ
% of Max
24%
GFP
GFP Sorted
GFP

Figure 14

FIG 15A



FUG 15B

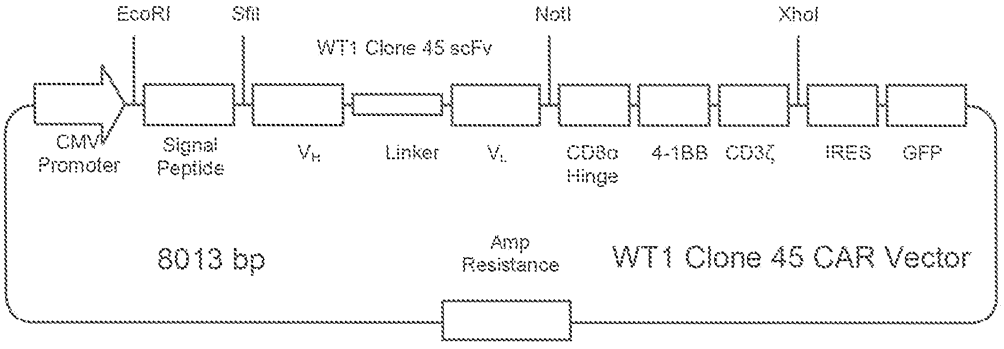


Figure 15

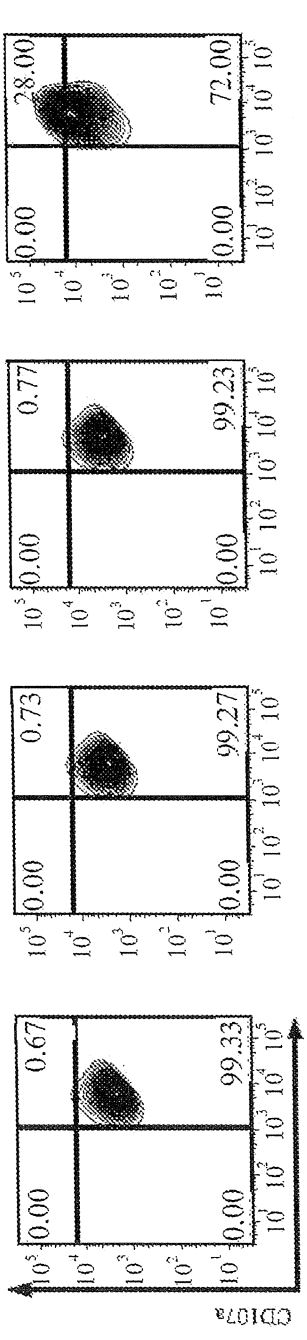


FIG 16A

FIG 16B

Figure 16

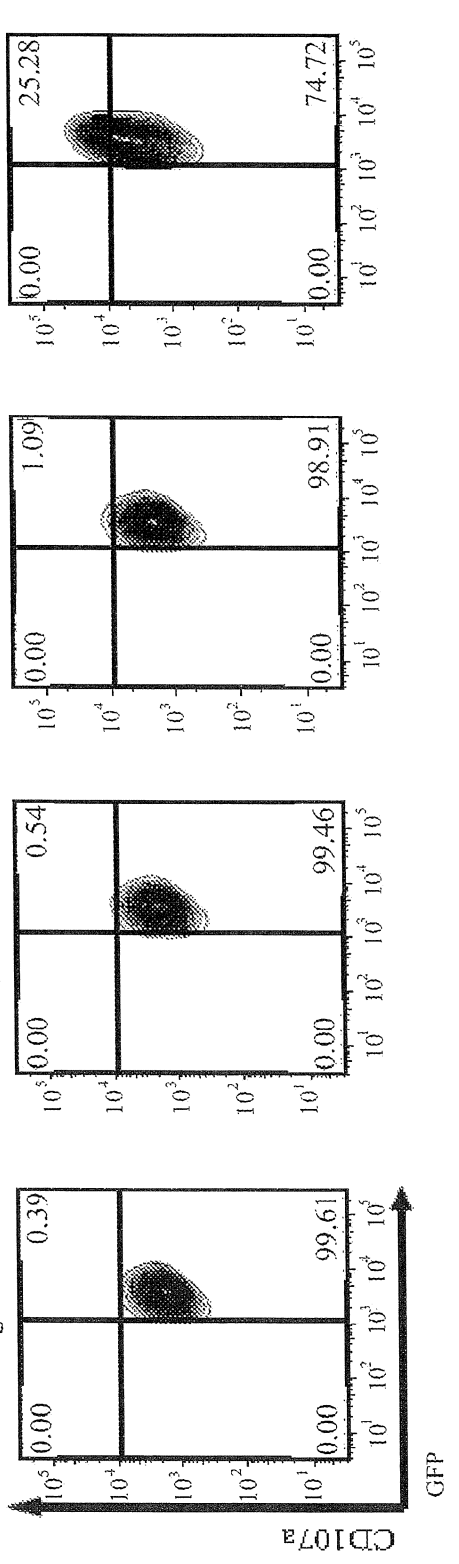

No Target Cells
Unpulsed T2
SEQ ID NO: 76
YMFPNAPYL-Pulsed T2
SEQ ID NO: 4
LLDFVRFMGV-Pulsed T2
0.00
0.39
99.61
0.00
0.54
99.46
0.00
1.09
98.91
0.00
25.28
74.72
CD107a
GFP

Figure 17

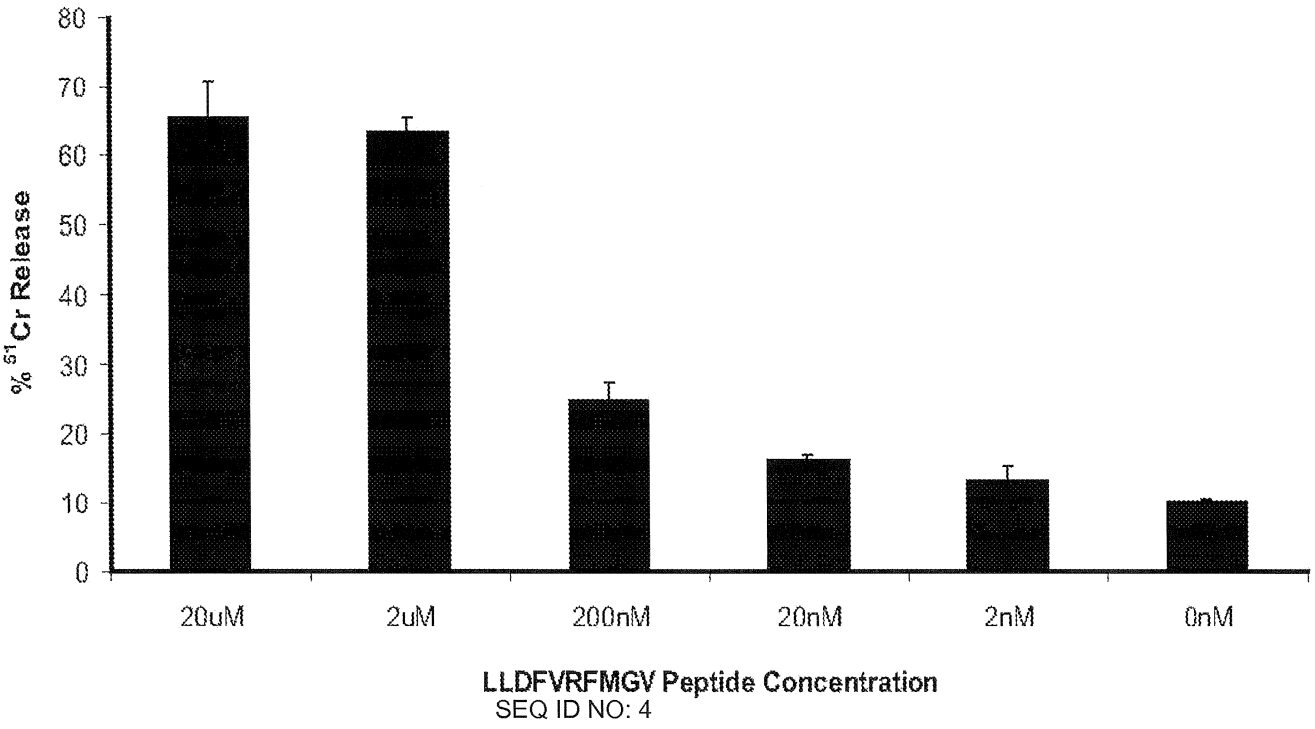

80
70
60
50
40
30
20
10
0
% 51Cr Release
20uM
2uM
200nM
20nM
2nM
0nM
LLDFVRFMGV Peptide Concentration
SEQ ID NO: 4

Figure 18

FIG 19A

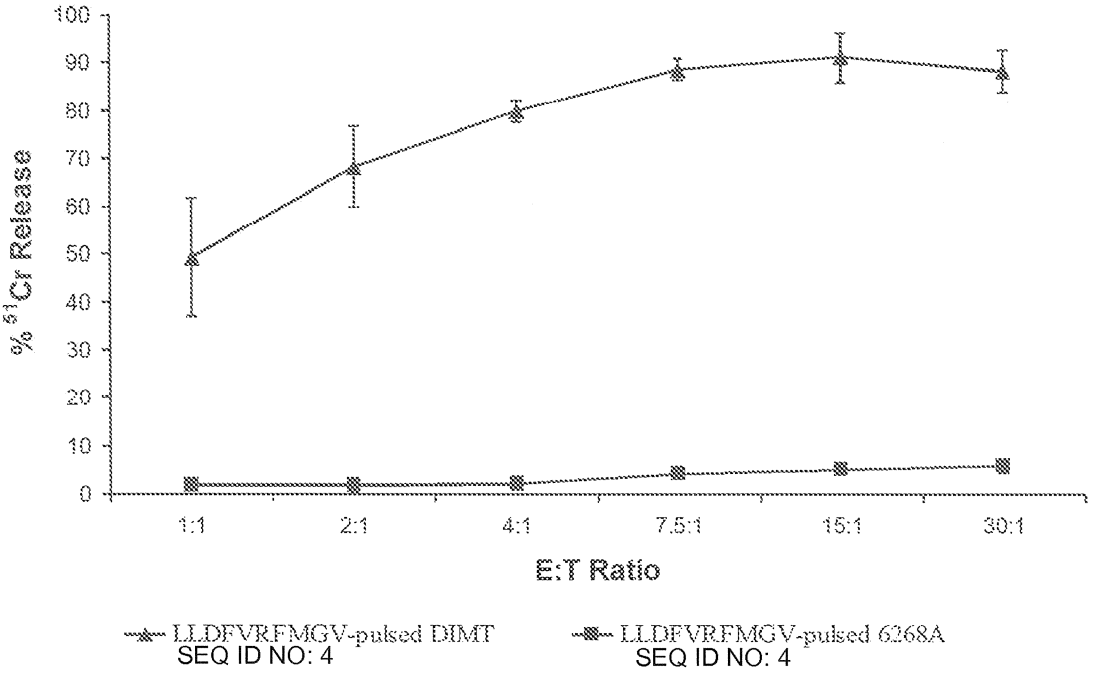


FIG 19B

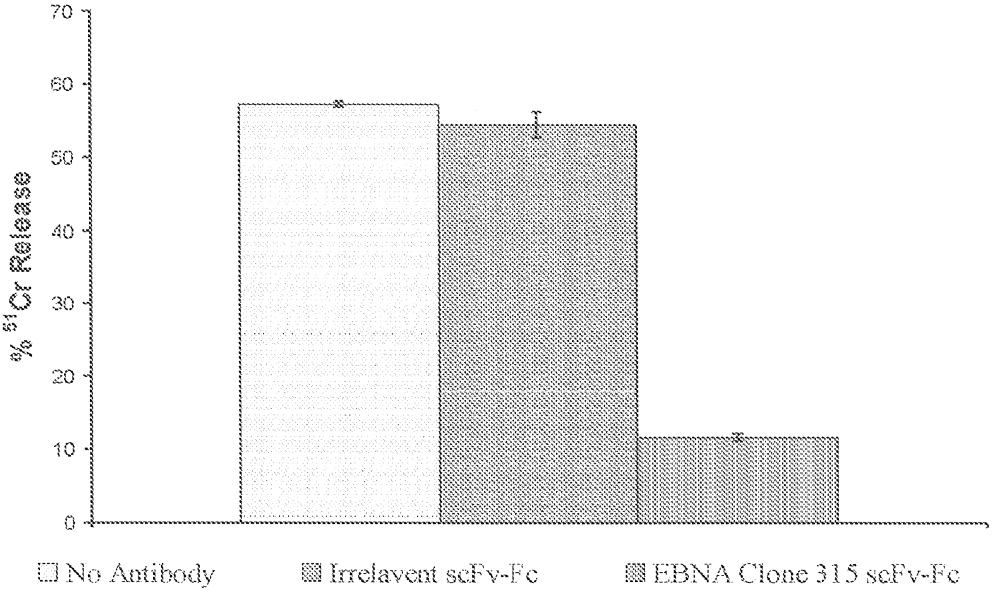


Figure 19

FIG 20A

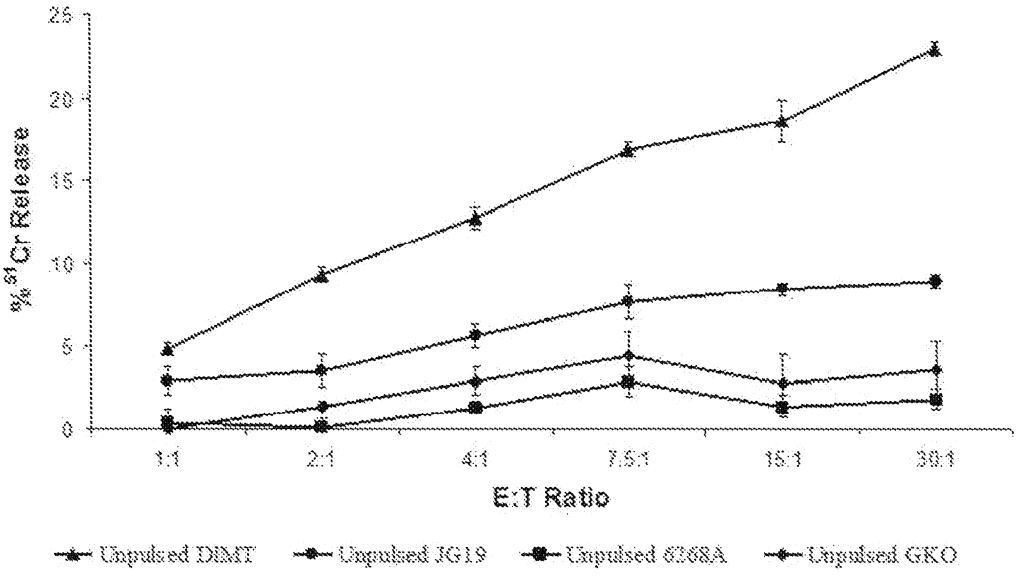


FIG 20B

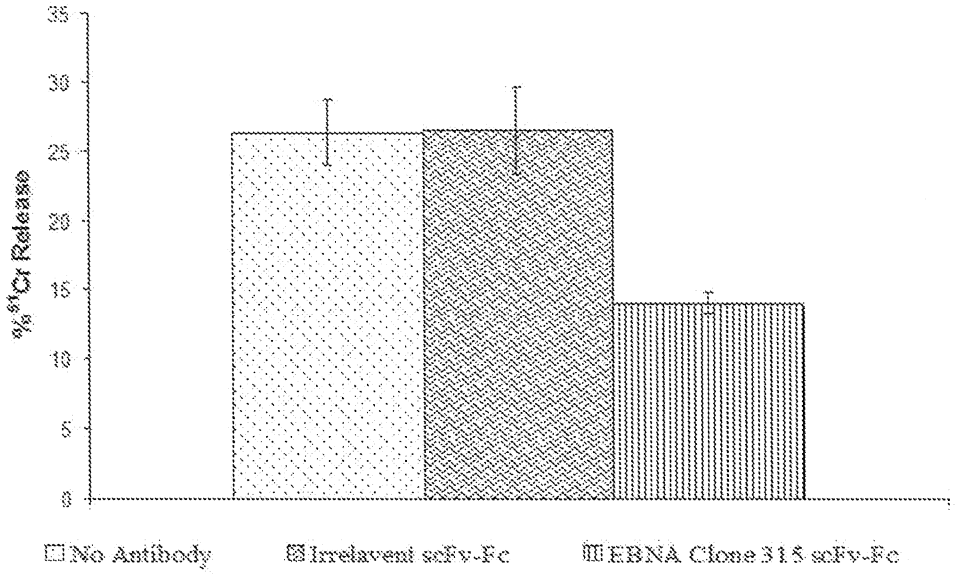


Figure 20

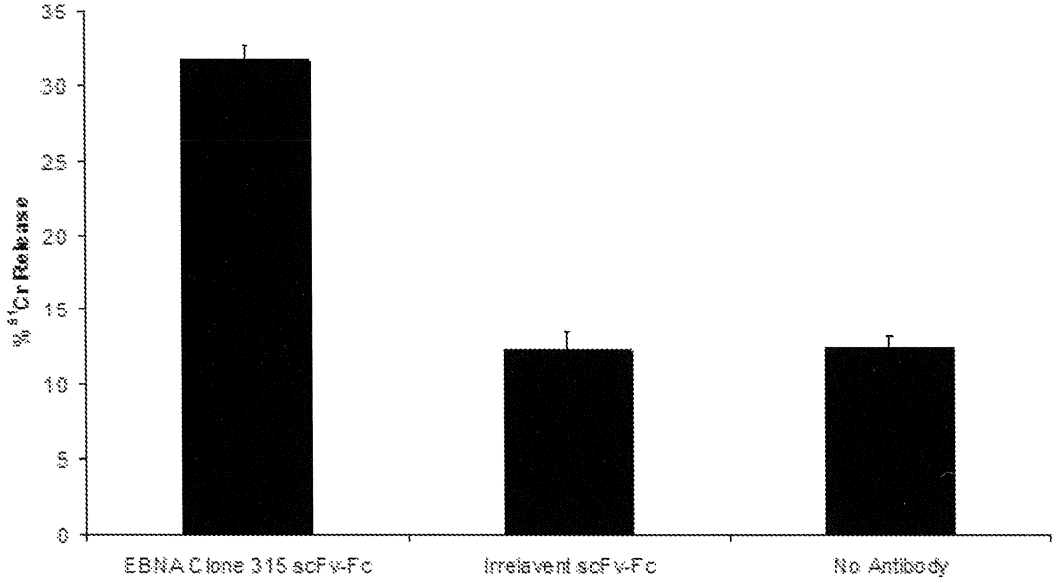

35
30
25
20
15
10
5
0
% 51Cr Release
EBNA Clone 315 scFv-Fc
Irrelavent scFv-Fc
No Antibody

Figure 21

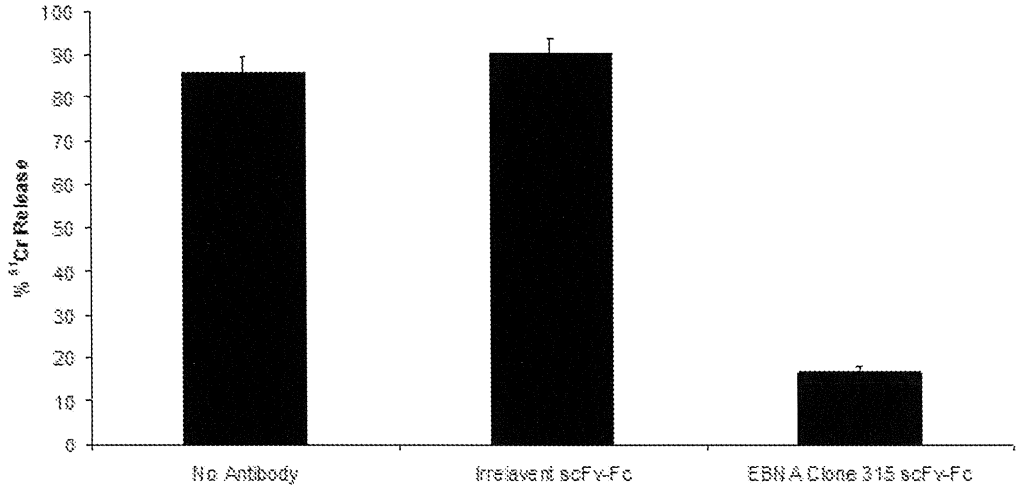

100
90
80
70
60
50
40
30
20
10
0
% 51Cr Release
No Antibody
Irrelavent scFv-Fc
EBNA Clone 315 scFv-Fc

Figure 22

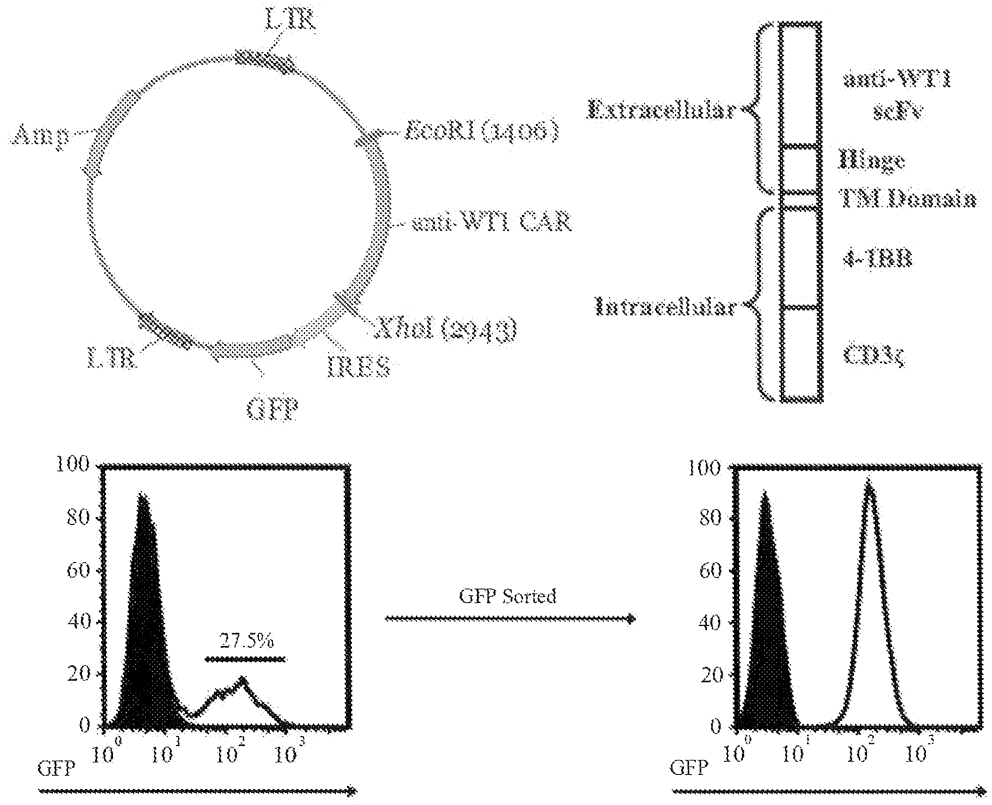

LTR
Amp
EcoRI (3406)
anti-WT1 CAR
XhoI (2943)
LTR
IRES
GFP
Extracellular
anti-WT1 scFv
Hinge
TM Domain
Intracellular
4-1BB
CD3ζ
100
80
60
40
20
0
27.5%
GFP
GFP Sorted

Figure 23

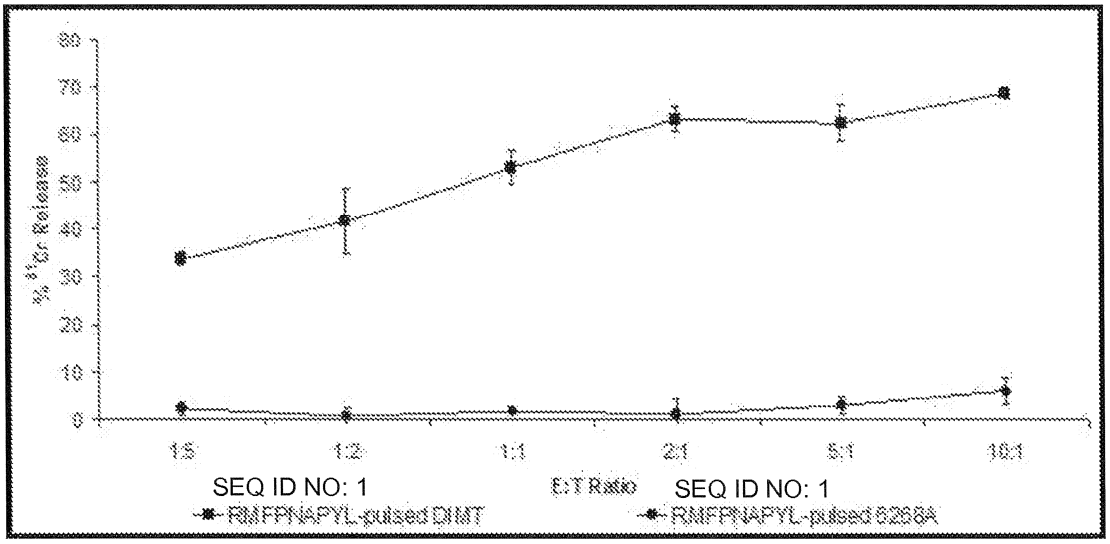

80
70
60
50
40
30
20
10
0
% ^{51}Cr Release
1:5
1:2
1:1
2:1
5:1
10:1
E:T Ratio
SEQ ID NO: 1
RNFPNAPYL-pulsed DMT
SEQ ID NO: 1
RNFPNAPYL-pulsed 6258A

Figure 24

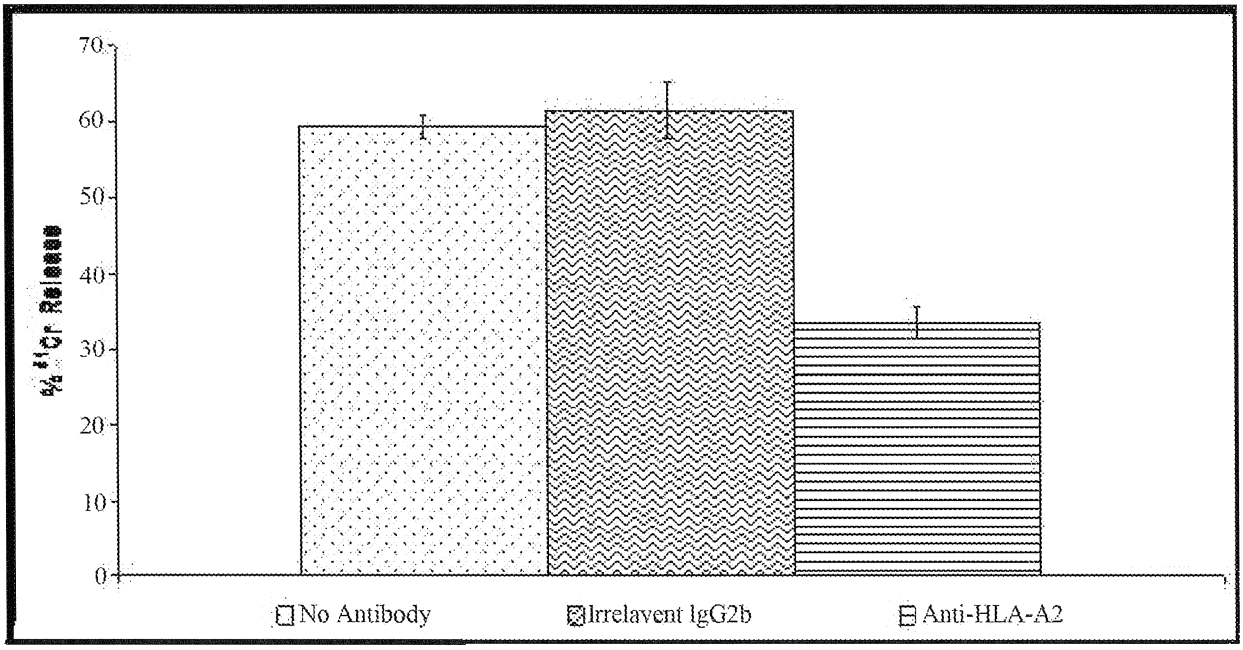

70
60
50
40
30
20
10
0
% ^{51}Cr Release
No Antibody
Irrelavent IgG2b
Anti-HLA-A2

Figure 25

FIG 26A

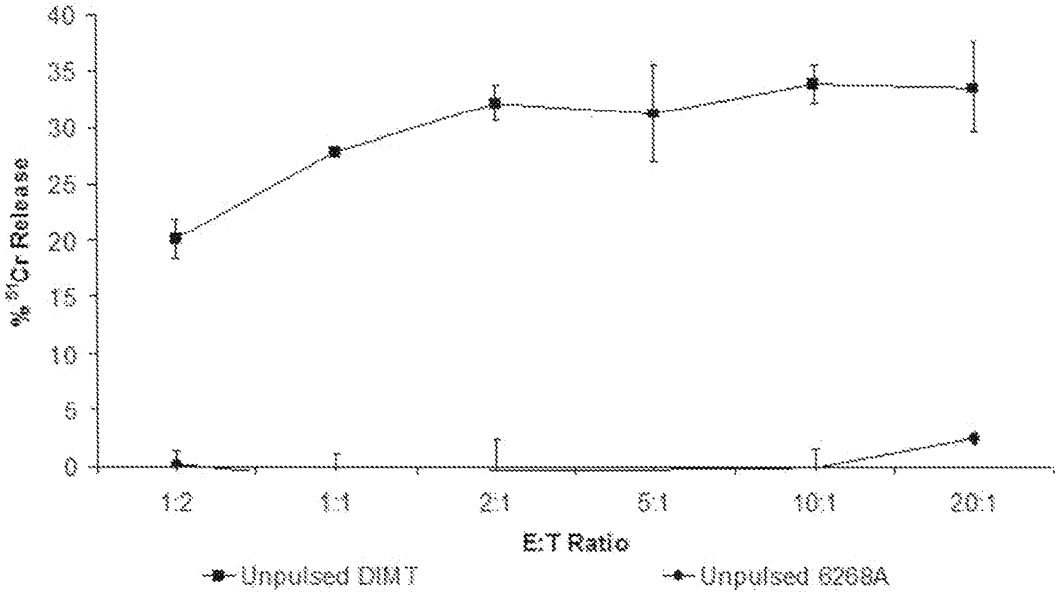


FIG 26B

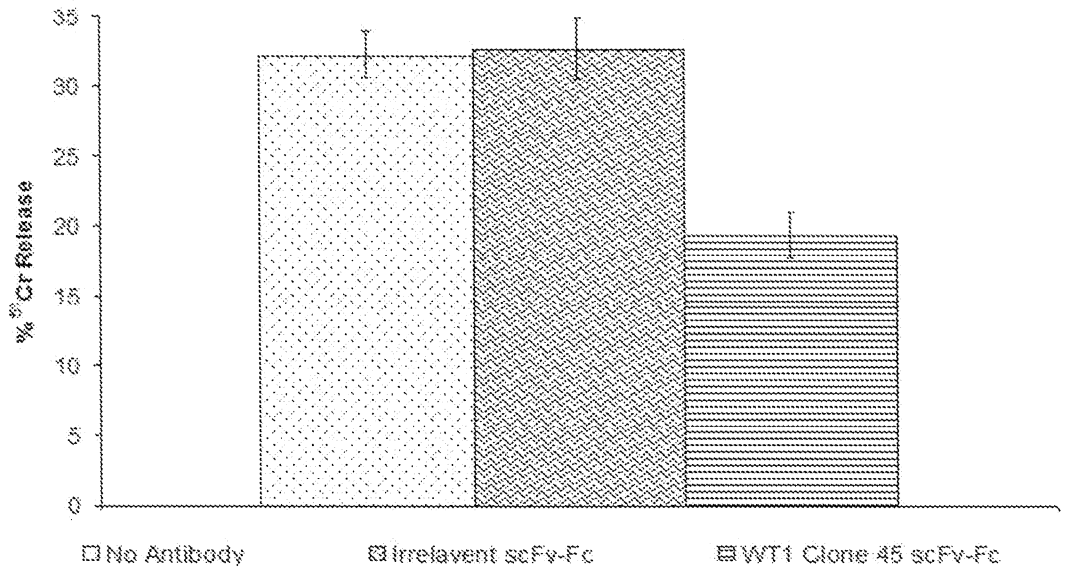


Figure 26

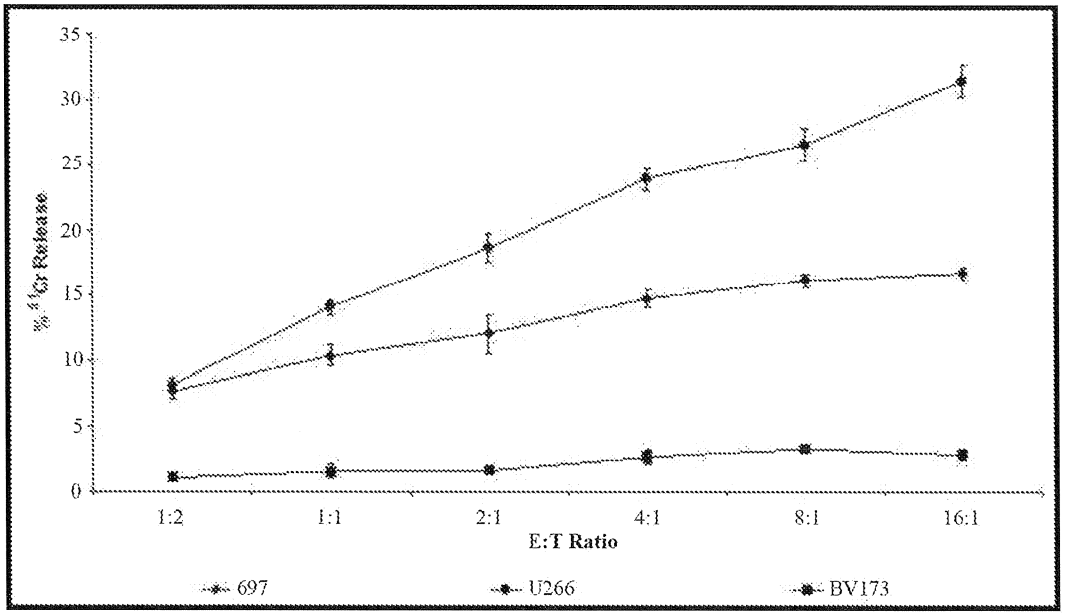

35
30
25
20
15
10
5
0
% ^{51}Cr Release
1:2
1:1
2:1
4:1
8:1
16:1
E:T Ratio
697
U266
BV173

Figure 27

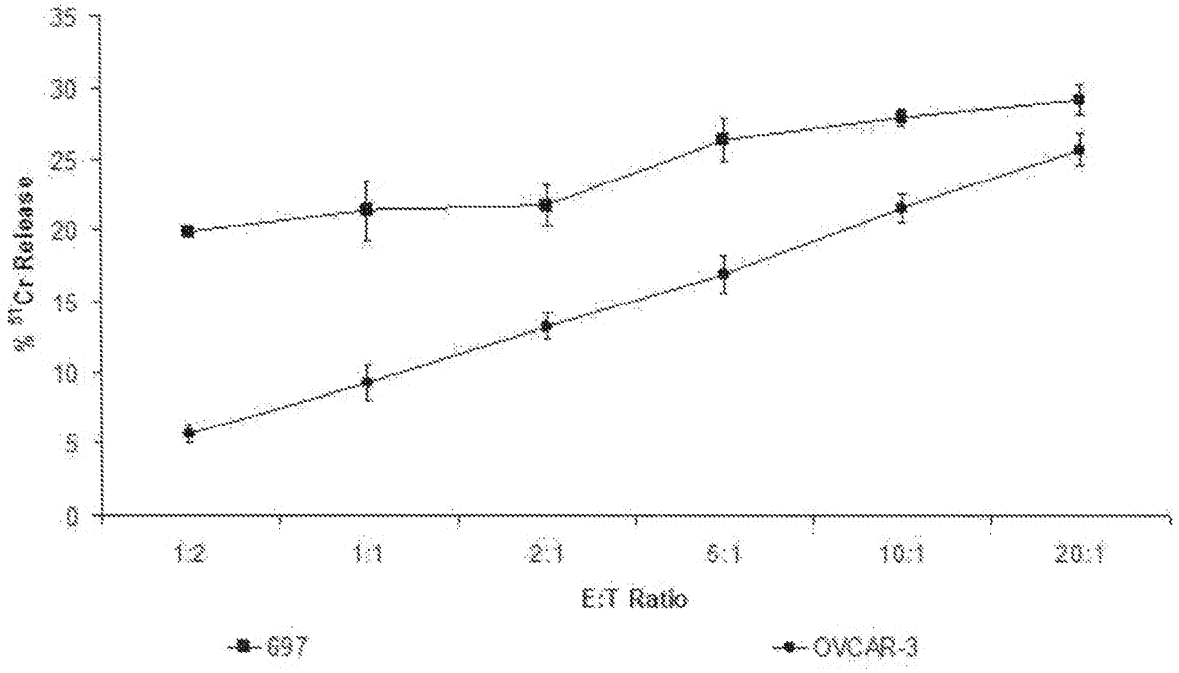

% ^{51}Cr Release
35
30
25
20
15
10
5
0
1:2
1:1
2:1
5:1
10:1
20:1
E:T Ratio
697
OVCAR-3

Figure 28