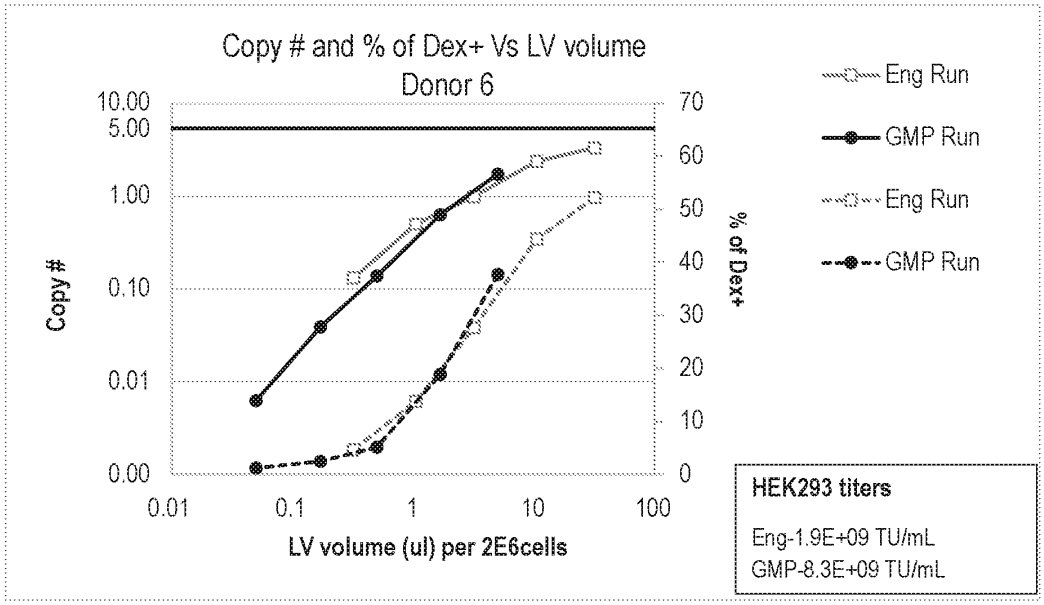

Copy # and % of Dex+ Vs LV volume
Donor 6
Copy #
10.00
5.00
1.00
0.10
0.01
0.00
% of Dex+
70
60
50
40
30
20
10
0
0.01
0.1
1
10
100
LV volume (ul) per 2E6cells
Eng Run
GMP Run
Eng Run
GMP Run
HEK293 titers
Eng-1.9E+09 TU/mL
GMP-8.3E+09 TU/mL

FIG. 1

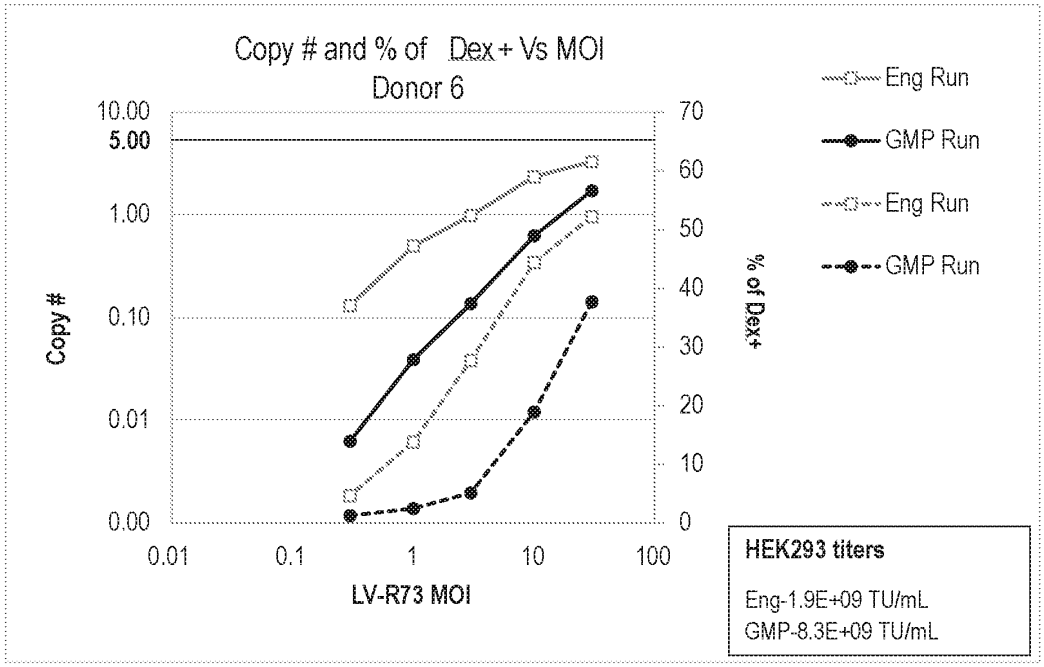

Copy # and % of Dex+ Vs MOI
Donor 6
Copy #
10.00
5.00
1.00
0.10
0.01
0.00
% of Dex+
70
60
50
40
30
20
10
0
0.01
0.1
1
10
100
LV-R73 MOI
Eng Run
GMP Run
Eng Run
GMP Run
HEK293 titers
Eng-1.9E+09 TU/mL
GMP-8.3E+09 TU/mL

FIG. 2

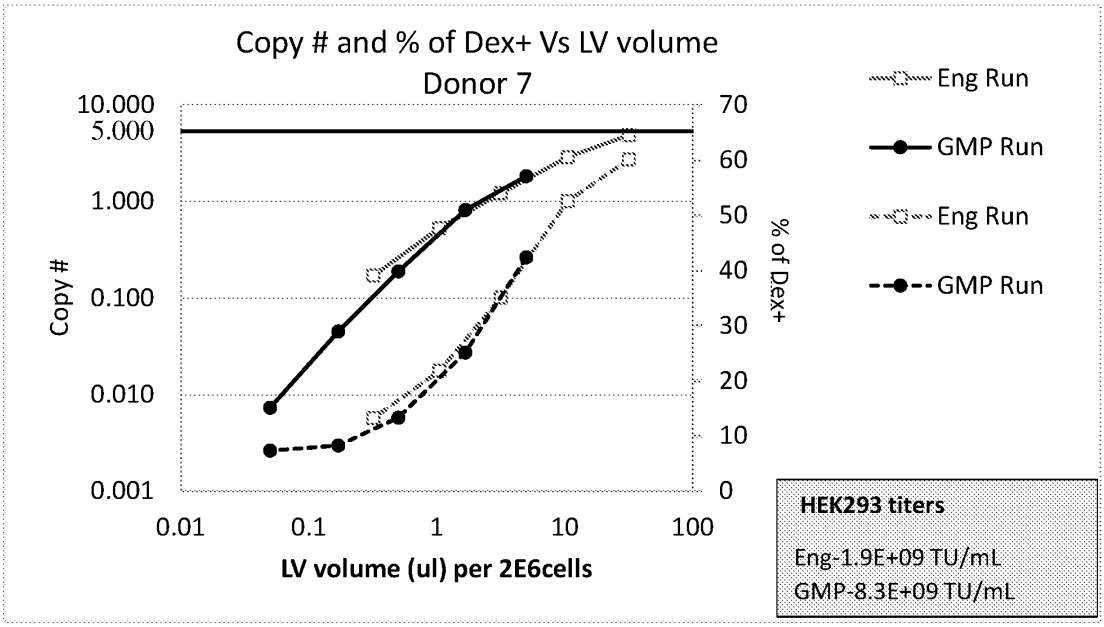

Copy # and % of Dex+ Vs LV volume
Donor 7
10.000
5.000
1.000
0.100
0.010
0.001
Copy #
70
60
50
40
30
20
10
0
% of Dex+
0.01
0.1
1
10
100
LV volume (ul) per 2E6cells
Eng Run
GMP Run
Eng Run
GMP Run
HEK293 titers
Eng-1.9E+09 TU/mL
GMP-8.3E+09 TU/mL

FIG. 3

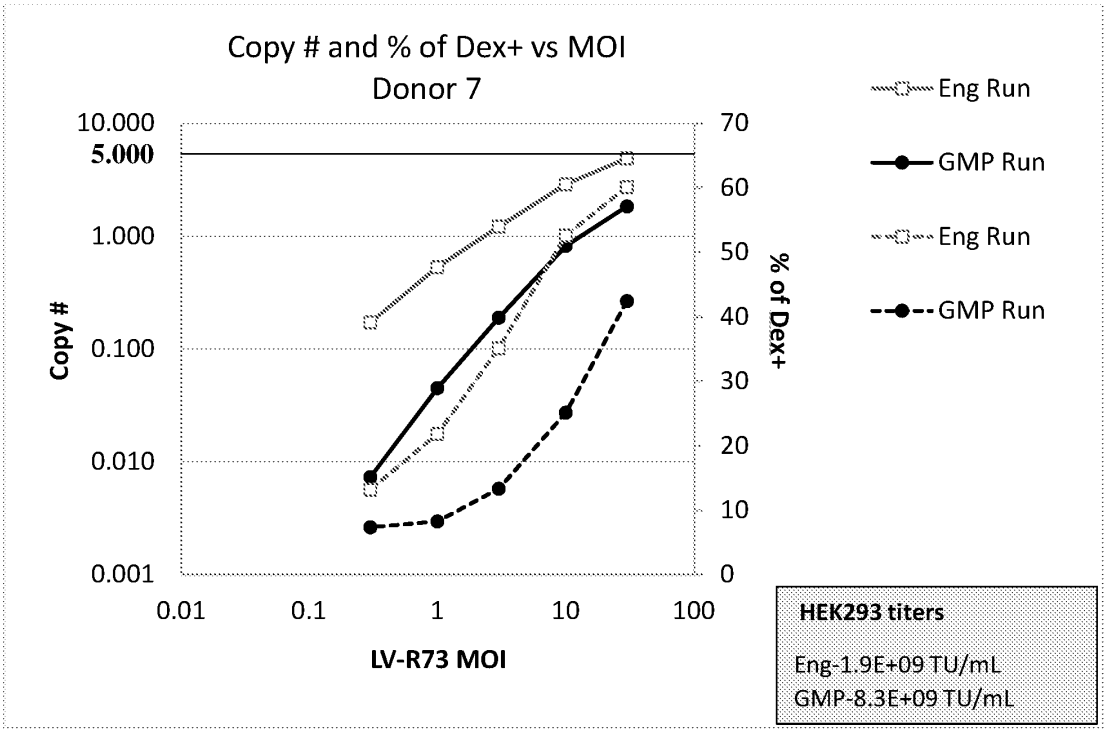

Copy # and % of Dex+ vs MOI
Donor 7
10.000
5.000
1.000
0.100
0.010
0.001
Copy #
70
60
50
40
30
20
10
0
% of Dex+
0.01
0.1
1
10
100
LV-R73 MOI
Eng Run
GMP Run
Eng Run
GMP Run
HEK293 titers
Eng-1.9E+09 TU/mL
GMP-8.3E+09 TU/mL

FIG. 4

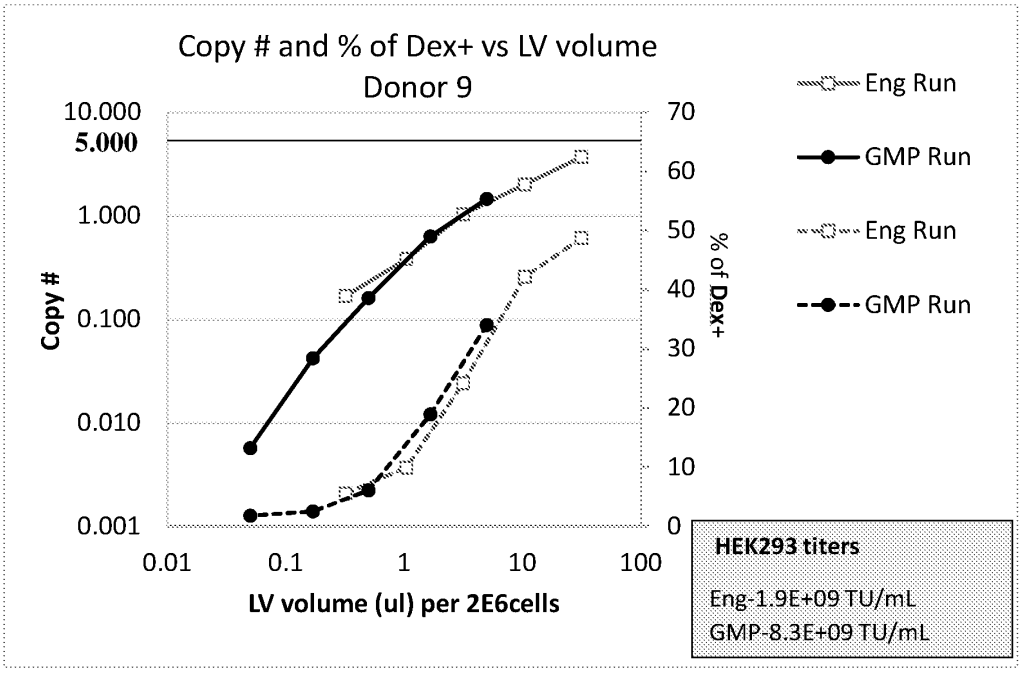

Copy # and % of Dex+ vs LV volume
Donor 9
10.000
5.000
1.000
0.100
0.010
0.001
Copy #
0.01
0.1
1
10
100
LV volume (ul) per 2E6cells
70
60
50
40
30
20
10
0
% of Dex+
Eng Run
GMP Run
Eng Run
GMP Run
HEK293 titers
Eng-1.9E+09 TU/mL
GMP-8.3E+09 TU/mL

FIG. 5

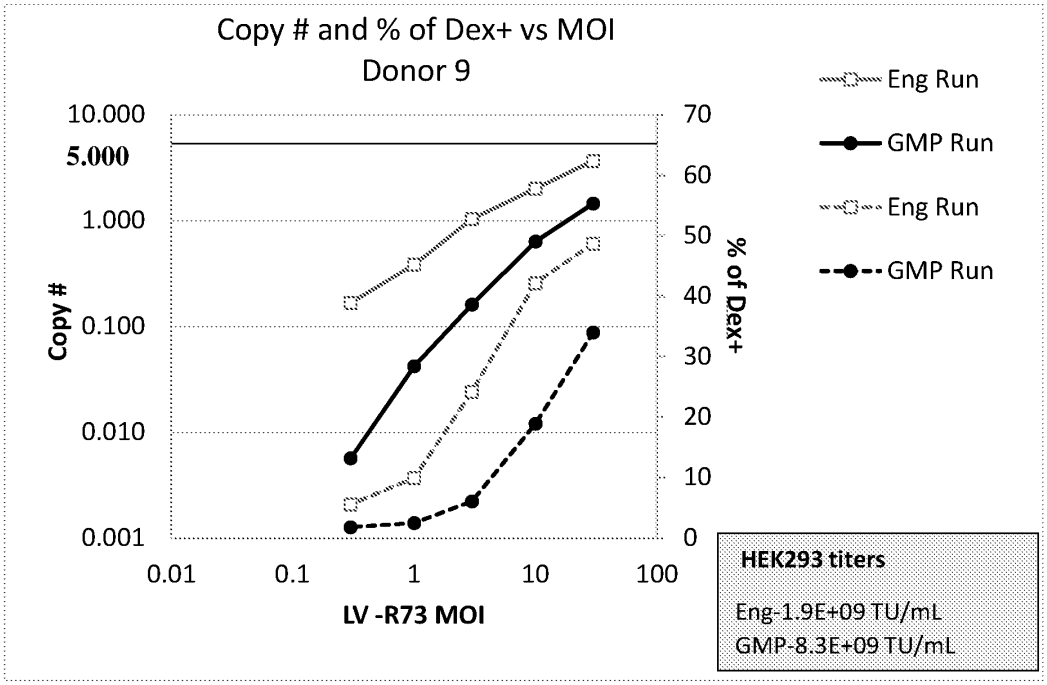

Copy # and % of Dex+ vs MOI
Donor 9
10.000
5.000
1.000
0.100
0.010
0.001
Copy #
0.01
0.1
1
10
100
LV -R73 MOI
70
60
50
40
30
20
10
0
% of Dex+
Eng Run
GMP Run
Eng Run
GMP Run
HEK293 titers
Eng-1.9E+09 TU/mL
GMP-8.3E+09 TU/mL

FIG. 6

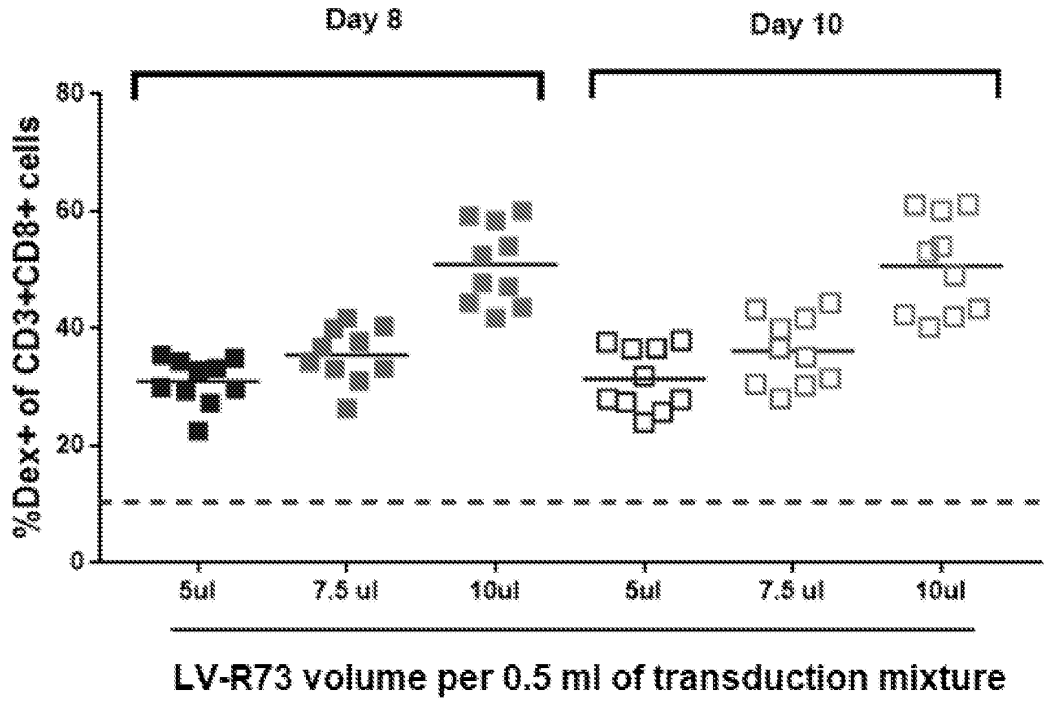

Day 8
Day 10
%Dex+ of CD3+CD8+ cells
80
60
40
20
0
5ul
7.5 ul
10ul
5ul
7.5 ul
10ul
LV-R73 volume per 0.5 ml of transduction mixture

FIG. 7

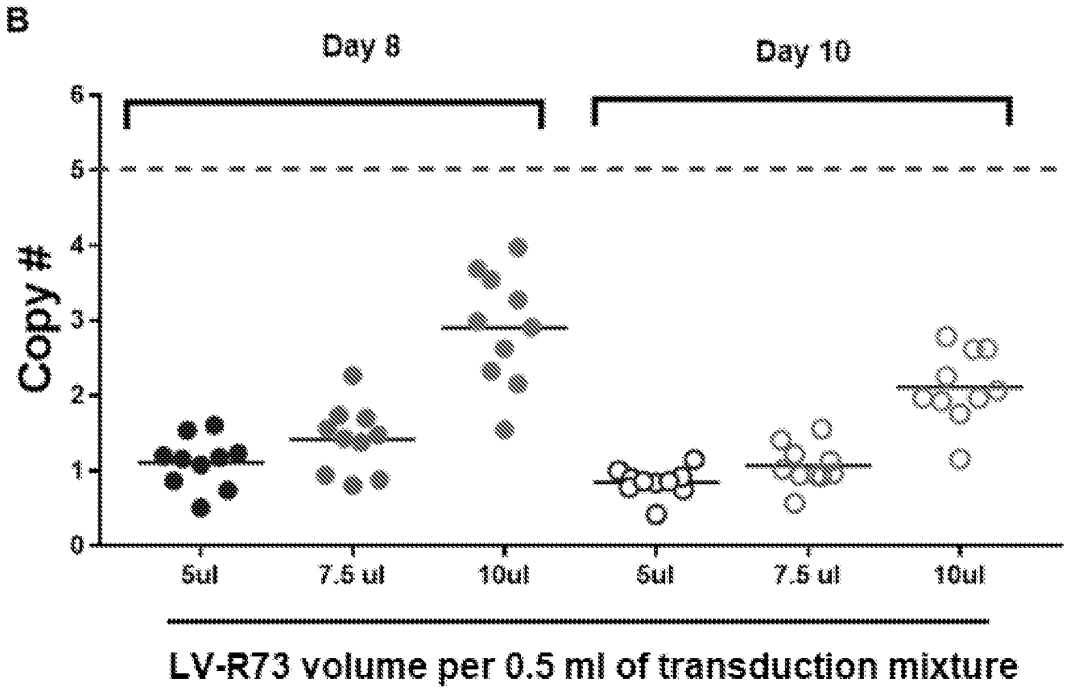

B
Day 8
Day 10
Copy #
0
1
2
3
4
5
6
5ul
7.5 ul
10ul
5ul
7.5 ul
10ul
LV-R73 volume per 0.5 ml of transduction mixture

FIG. 8

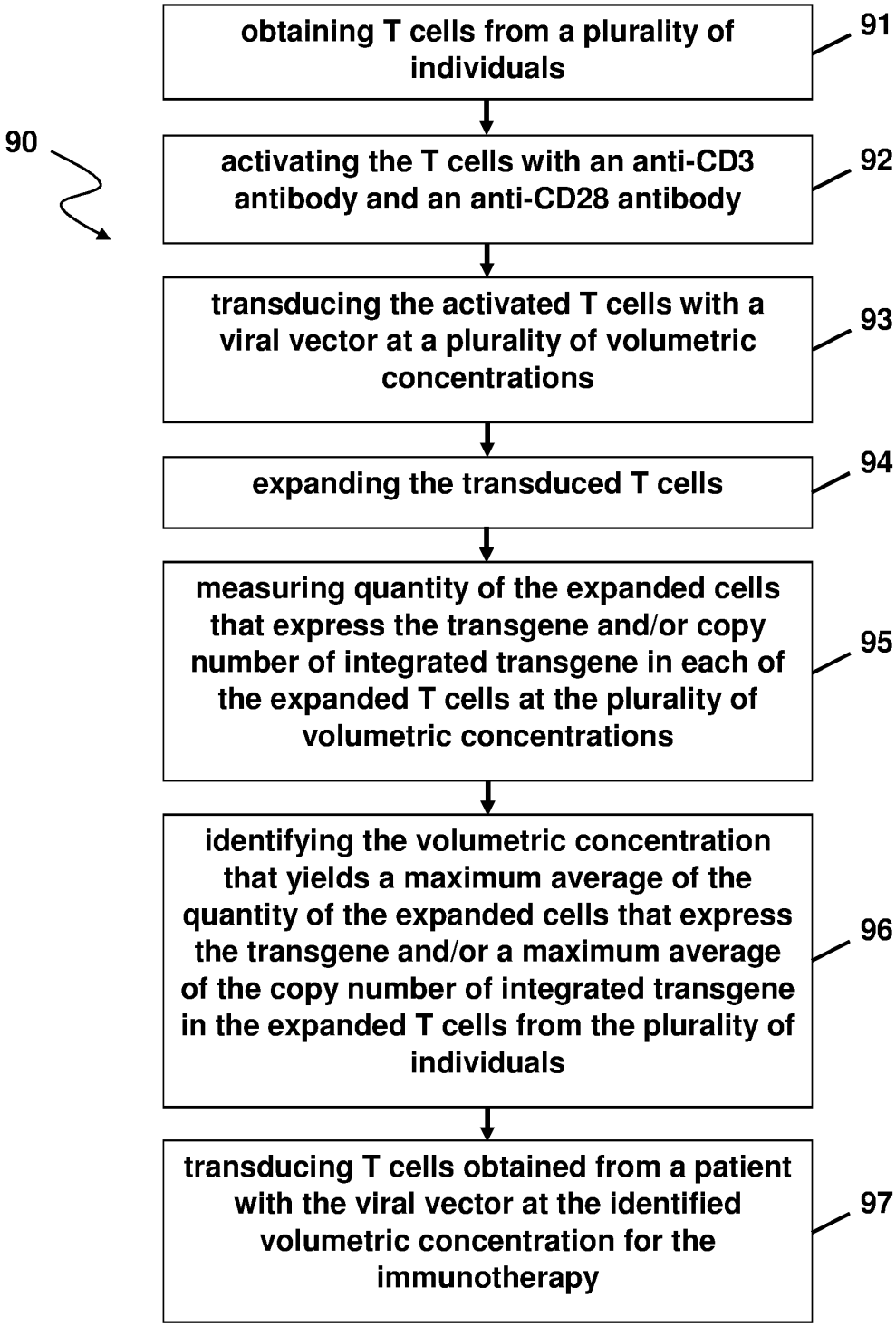

obtaining T cells from a plurality of individuals
91
90
activating the T cells with an anti-CD3 antibody and an anti-CD28 antibody
92
transducing the activated T cells with a viral vector at a plurality of volumetric concentrations
93
expanding the transduced T cells
94
measuring quantity of the expanded cells that express the transgene and/or copy number of integrated transgene in each of the expanded T cells at the plurality of volumetric concentrations
95
identifying the volumetric concentration that yields a maximum average of the quantity of the expanded cells that express the transgene and/or a maximum average of the copy number of integrated transgene in the expanded T cells from the plurality of individuals
96
transducing T cells obtained from a patient with the viral vector at the identified volumetric concentration for the immunotherapy
97

FIG. 9