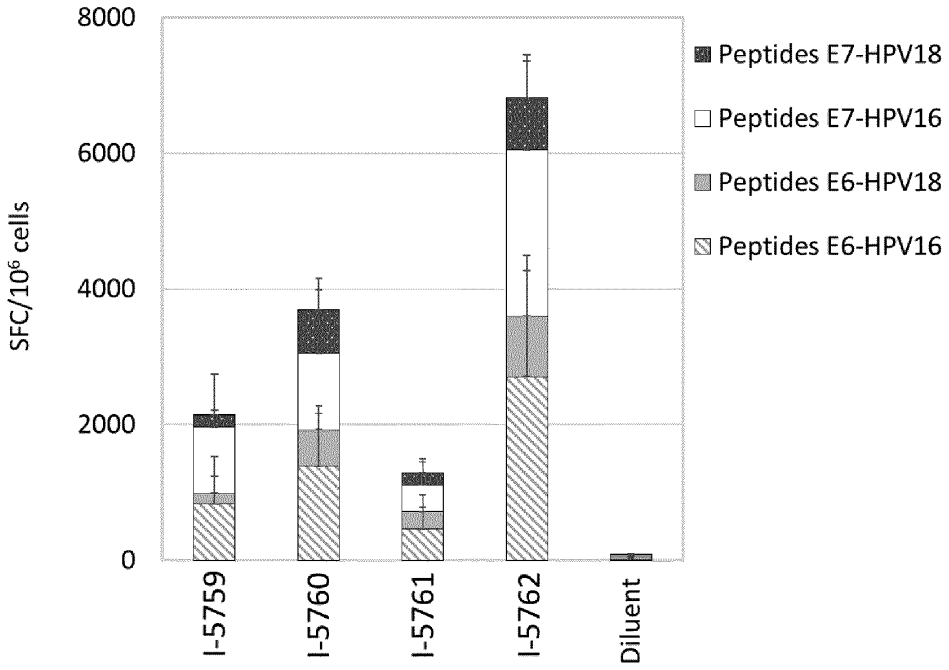

8000
6000
4000
2000
0
SFC/10⁶ cells
Peptides E7-HPV18
Peptides E7-HPV16
Peptides E6-HPV18
Peptides E6-HPV16
I-5759
I-5760
I-5761
I-5762
Diluent

FIGURE 1

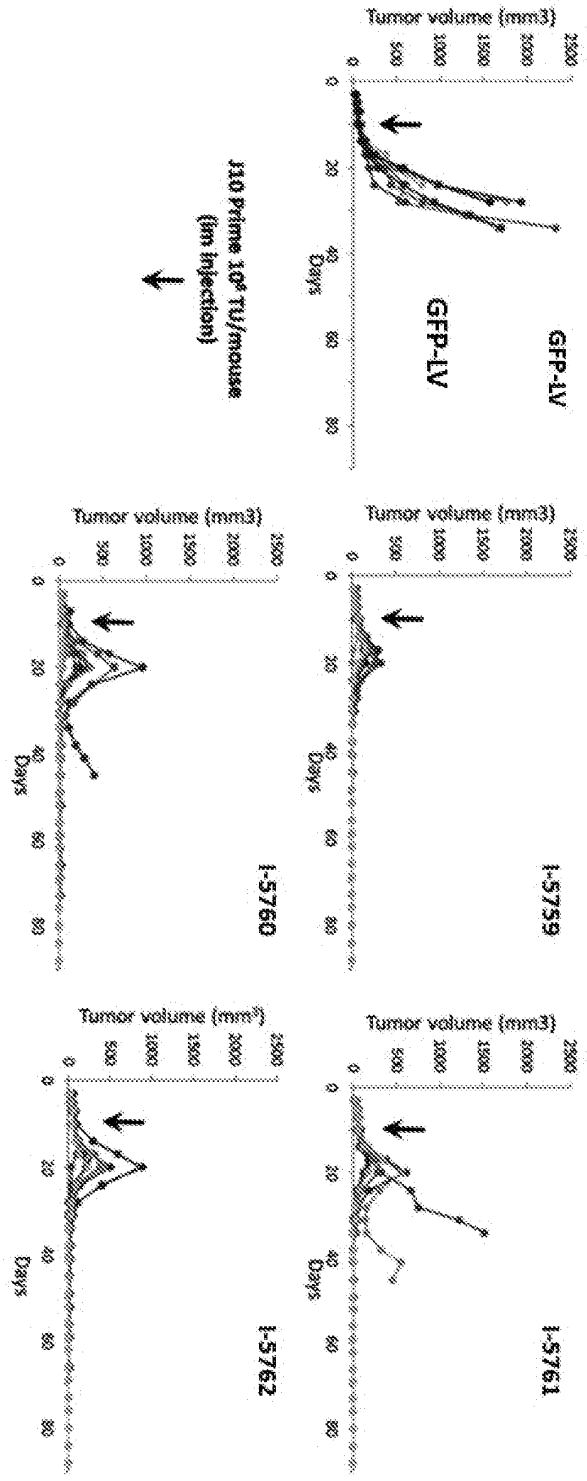

J10 Prime 10⁸ TU/mouse
(im injection)
Tumor volume (mm3)
Days
GFP-LV
GFP-LV
I-5760
I-5759
I-5762
I-5761

FIGURE 2

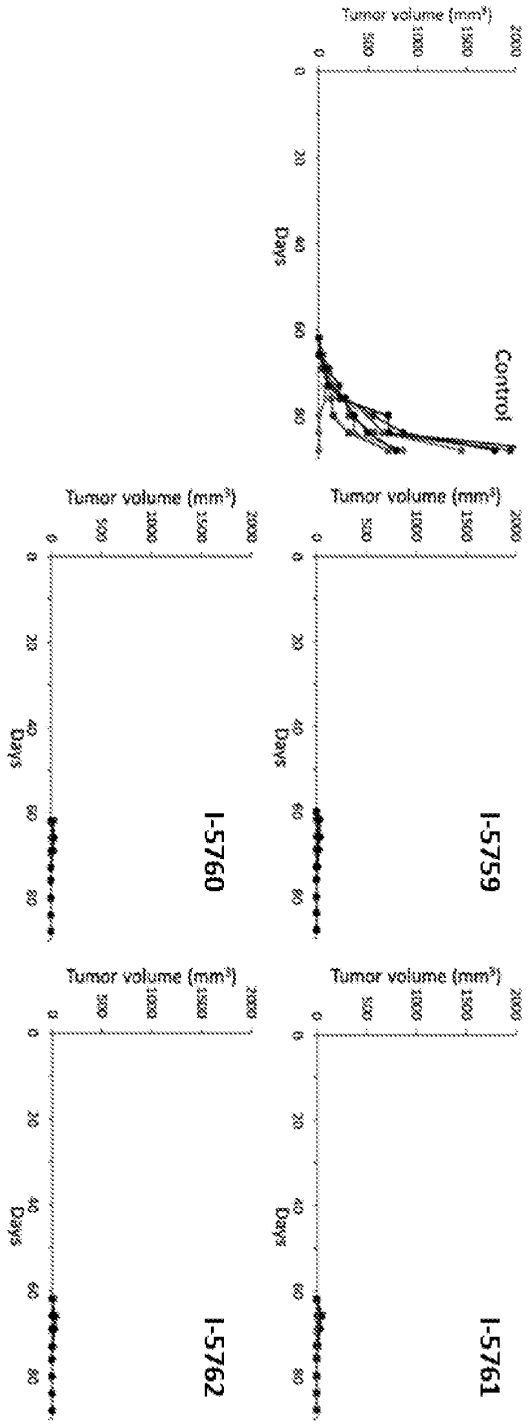


FIGURE 3

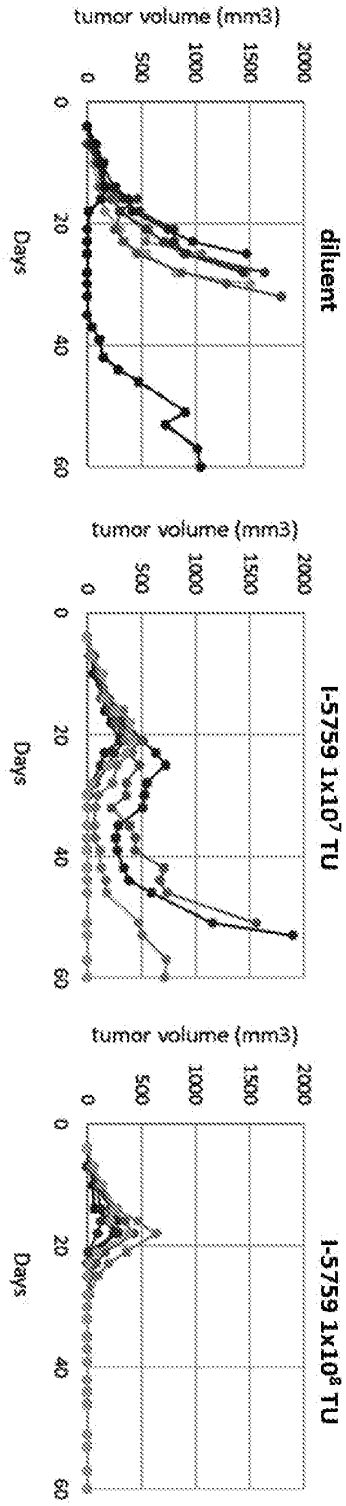

tumor volume (mm3)
0
500
1000
1500
2000
Days
0
20
40
60
diluent
tumor volume (mm3)
I-5759 1x10^7 TU
tumor volume (mm3)
I-5759 1x10^8 TU

FIGURE 4

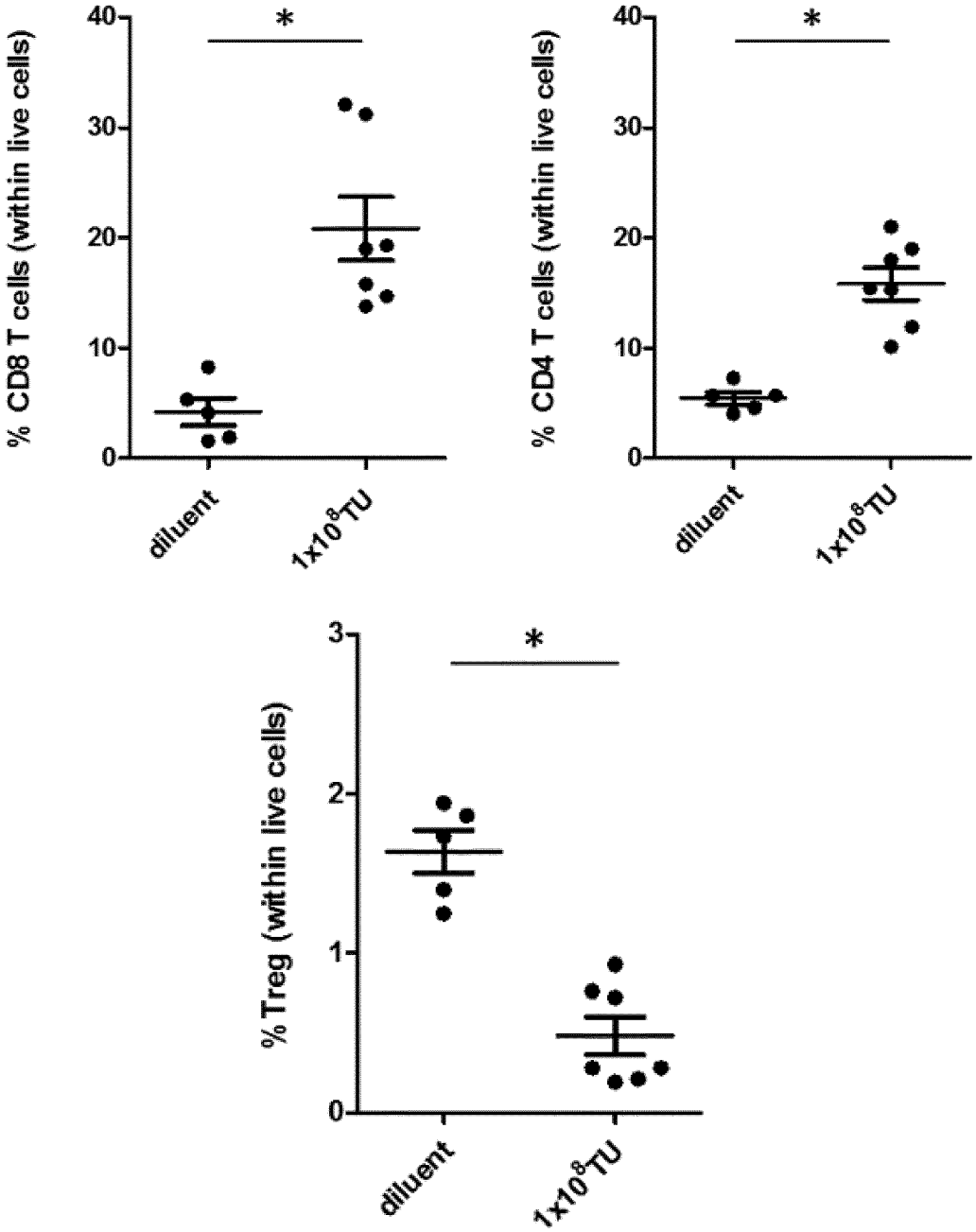

% CD8 T cells (within live cells)
40
30
20
10
0
*
diluent
1x10^8 TU
% CD4 T cells (within live cells)
40
30
20
10
0
*
diluent
1x10^8 TU
% Treg (within live cells)
3
2
1
0
*
diluent
1x10^8 TU

FIGURE 5

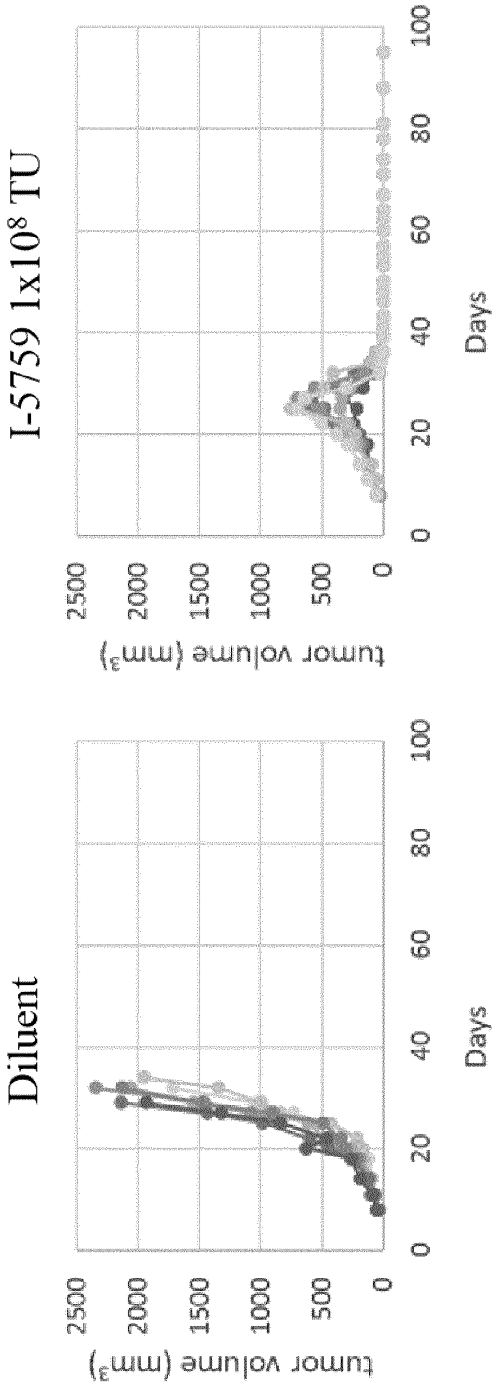

Diluent
I-5759 1x10^8 TU
tumor volume (mm^3)
2500
2000
1500
1000
500
0
0
20
40
60
80
100
Days

FIGURE 6

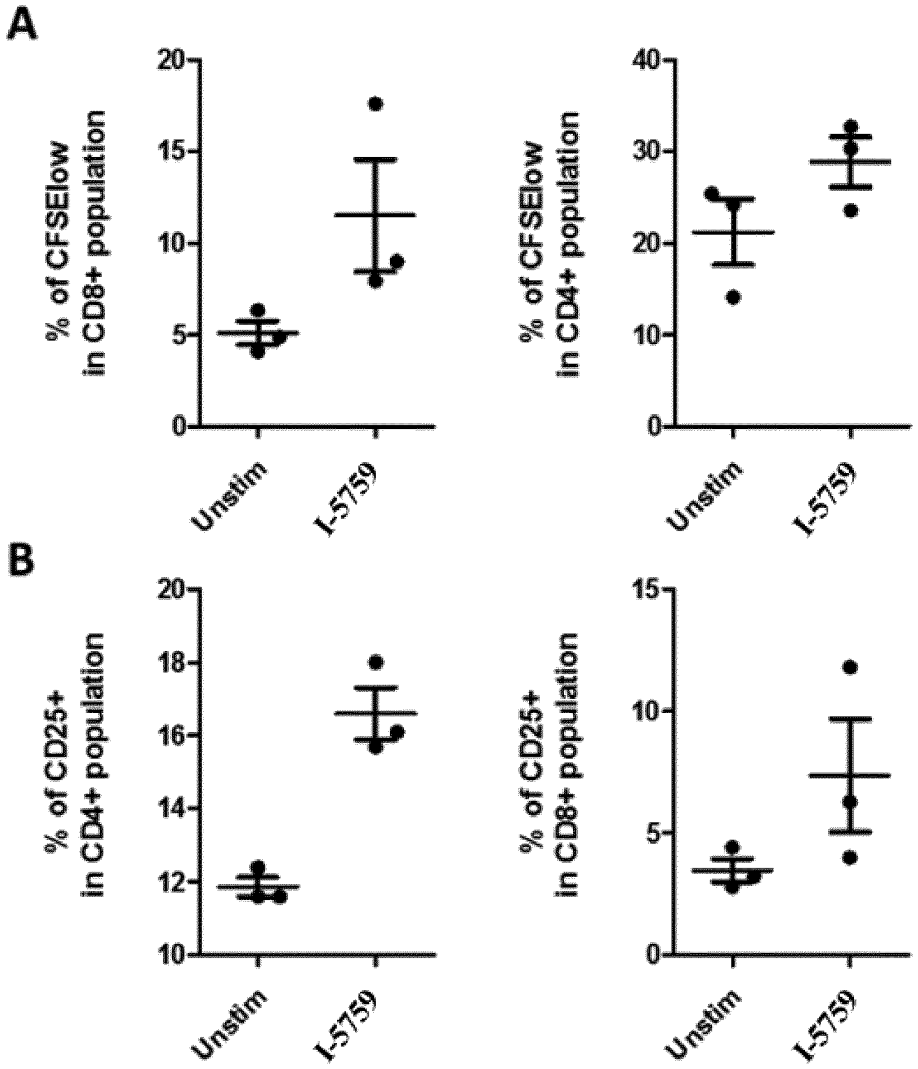

A
% of CFSElow in CD8+ population
20
15
10
5
0
Unstim
I-5759
% of CFSElow in CD4+ population
40
30
20
10
0
Unstim
I-5759
B
% of CD25+ in CD4+ population
20
18
16
14
12
10
Unstim
I-5759
% of CD25+ in CD8+ population
15
10
5
0
Unstim
I-5759

FIGURE 7

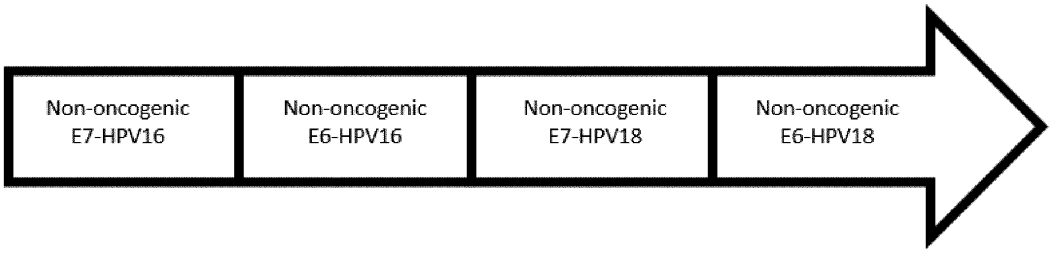


Figure 8A

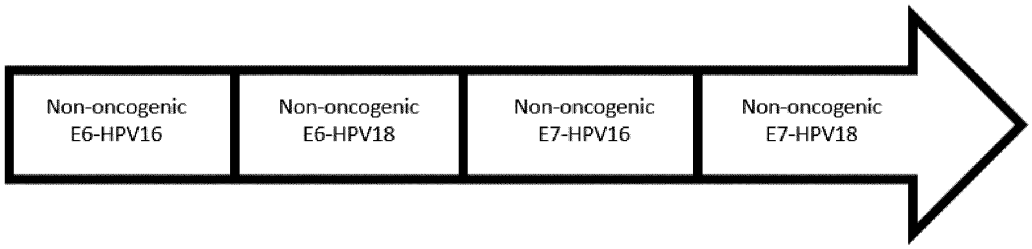


Figure 8B

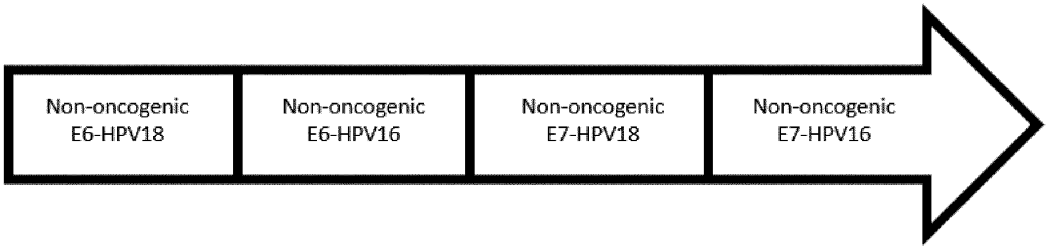


Figure 8C

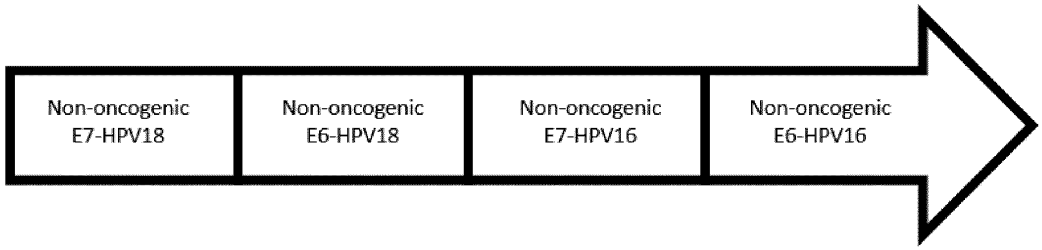


Figure 8D

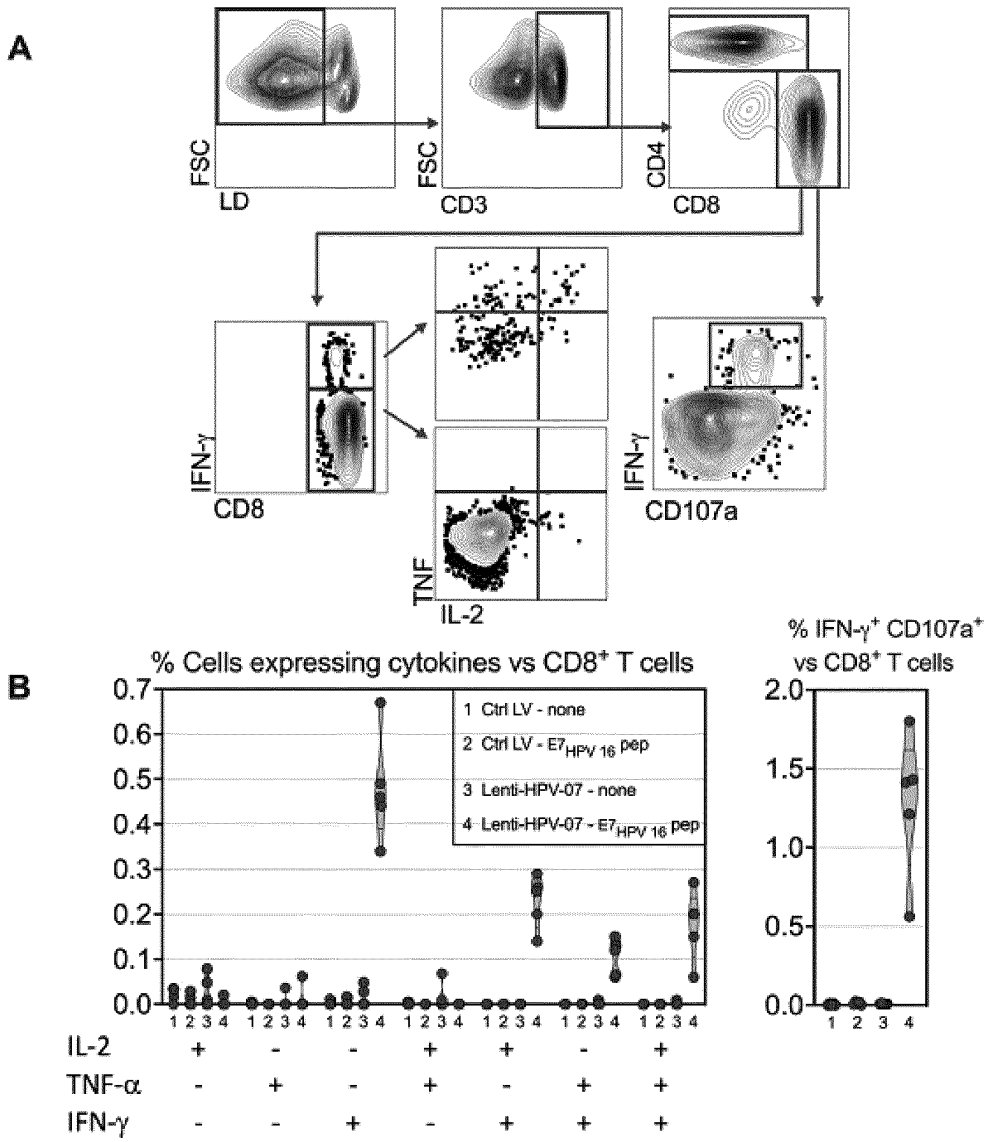

A
FSC
LD
FSC
CD3
CD4
CD8
IFN-γ
CD8
TNF
IL-2
IFN-γ
CD107a
B
% Cells expressing cytokines vs CD8+ T cells
1 Ctrl LV - none
2 Ctrl LV - E7HPV 16 pep
3 Lenti-HPV-07 - none
4 Lenti-HPV-07 - E7HPV 16 pep
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4
IL-2 + - - + + - +
TNF-α - + - + - + +
IFN-γ - - + - + + +
% IFN-γ+ CD107a+
vs CD8+ T cells
2.0
1.5
1.0
0.5
0.0
1 2 3 4

FIGURE 9

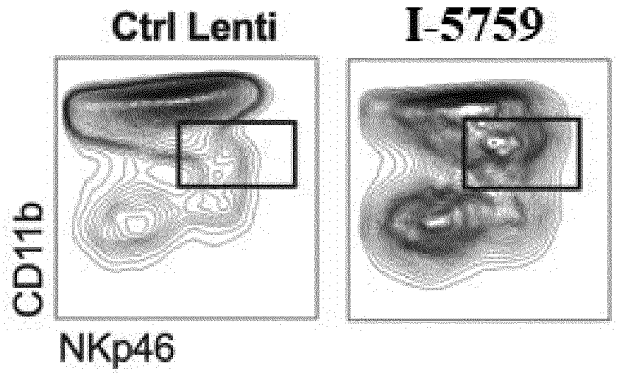


FIGURE 10

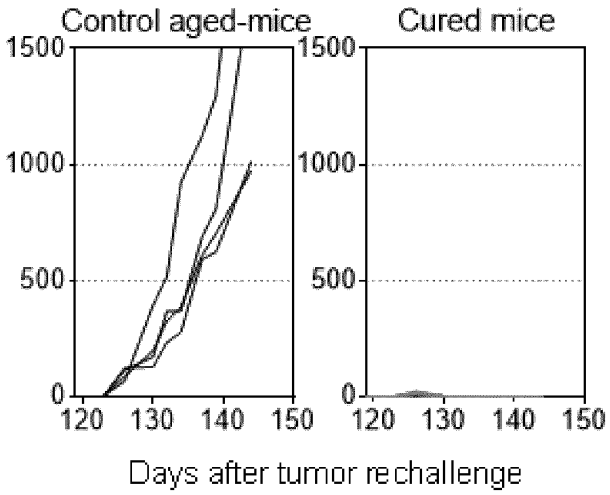

Control aged-mice
Cured mice
1500
1000
500
0
120
130
140
150
Days after tumor rechallenge

FIGURE 11

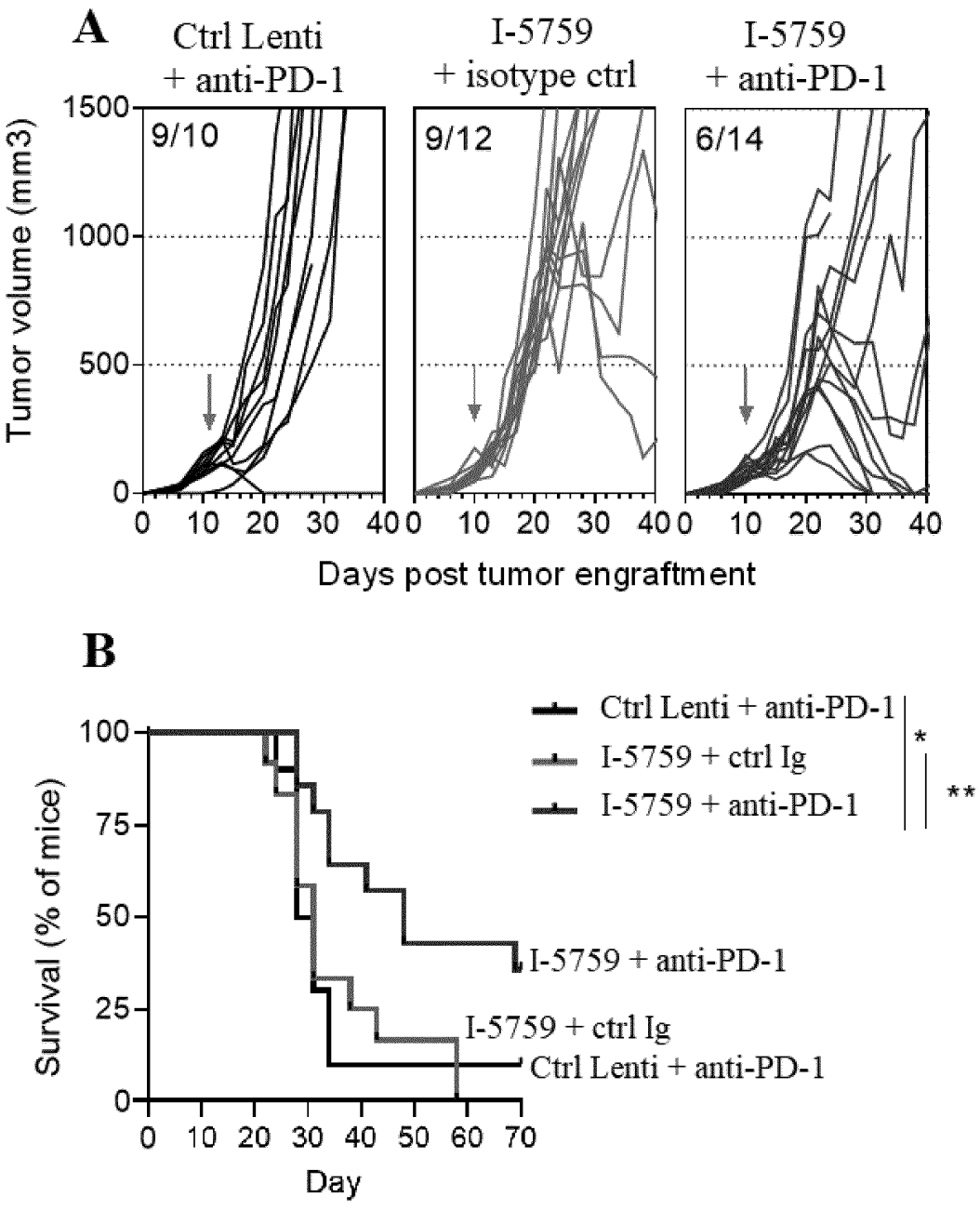

A
Ctrl Lenti
+ anti-PD-1
I-5759
+ isotype ctrl
I-5759
+ anti-PD-1
9/10
9/12
6/14
Tumor volume (mm3)
1500
1000
500
0
0 10 20 30 40
Days post tumor engraftment
B
Ctrl Lenti + anti-PD-1
I-5759 + ctrl Ig
I-5759 + anti-PD-1
*
**
Survival (% of mice)
100
75
50
25
0
0 10 20 30 40 50 60 70
Day
I-5759 + anti-PD-1
I-5759 + ctrl Ig
Ctrl Lenti + anti-PD-1

FIGURE 12

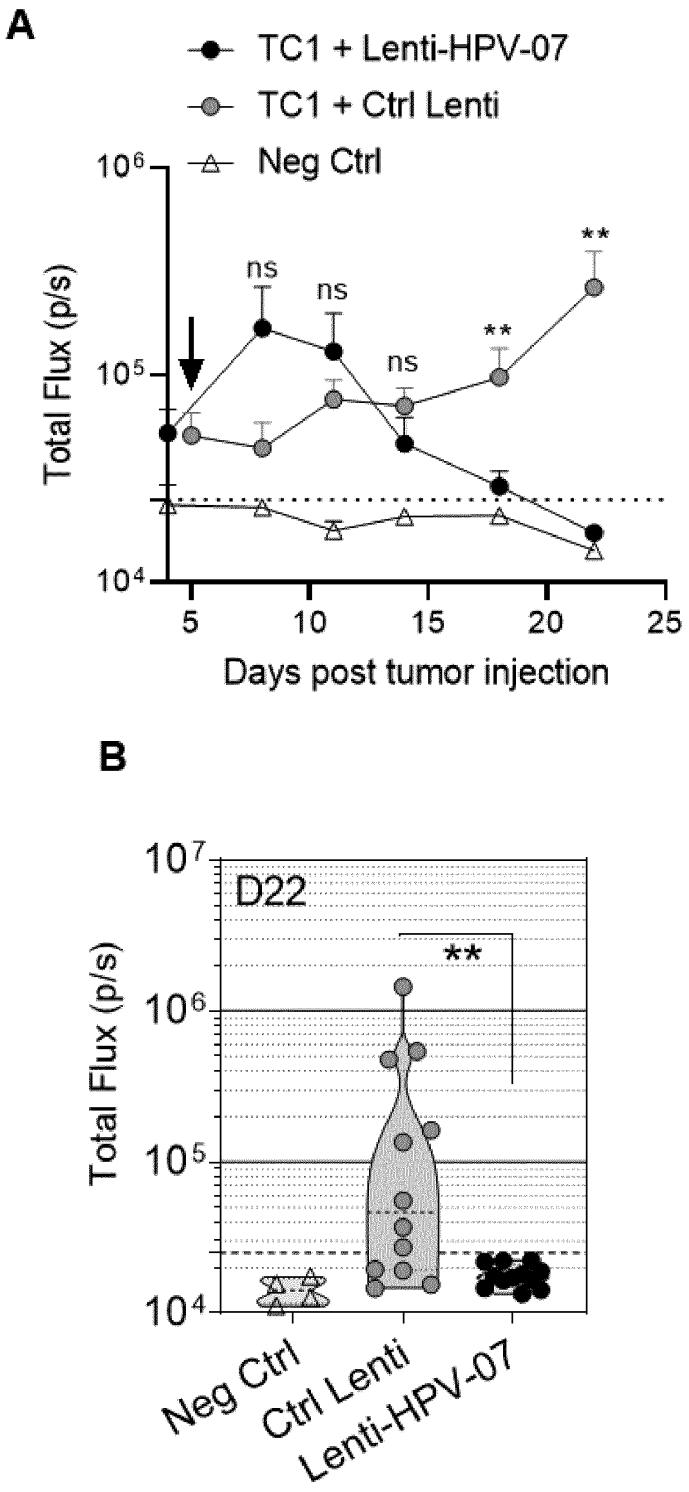

A
TC1 + Lenti-HPV-07
TC1 + Ctrl Lenti
Neg Ctrl
Total Flux (p/s)
10^6
10^5
10^4
ns
ns
ns
**
**
5
10
15
20
25
Days post tumor injection
B
10^7
D22
**
10^6
10^5
10^4
Total Flux (p/s)
Neg Ctrl
Ctrl Lenti
Lenti-HPV-07

FIGURE 13