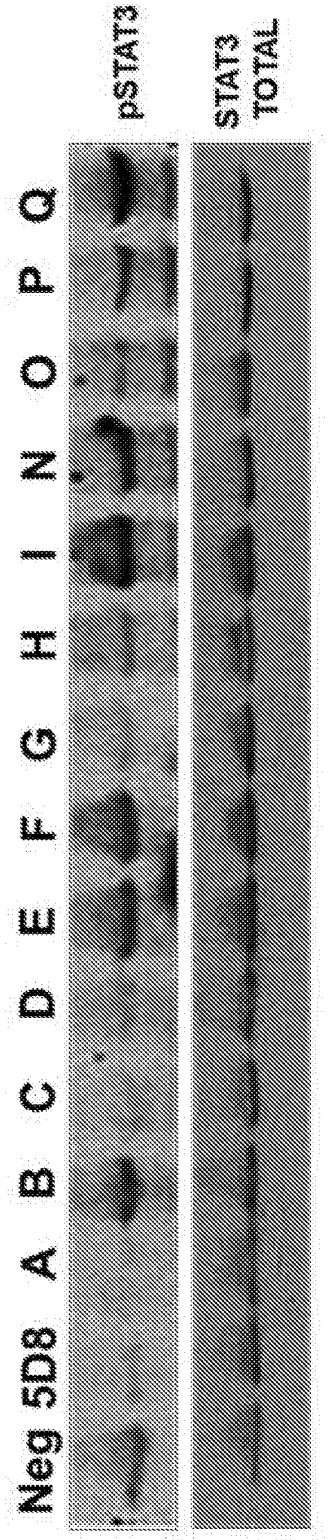

Fig. 1

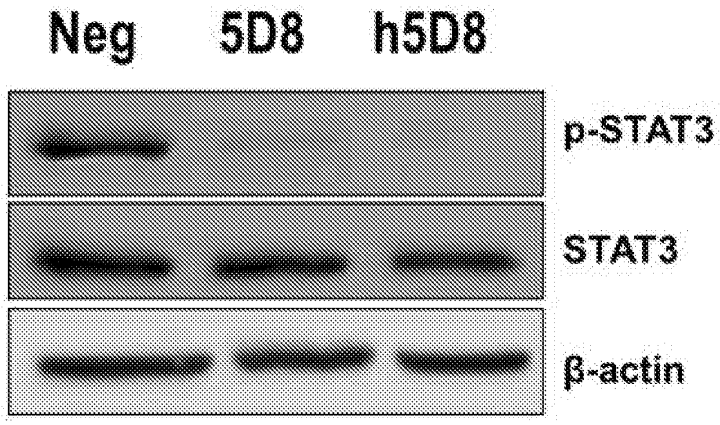
Neg
5D8
h5D8
p-STAT3
STAT3
β-actin

Fig. 2A

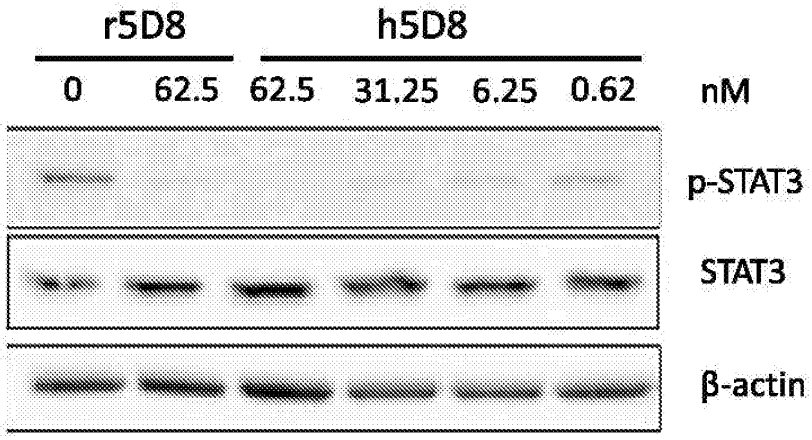
r5D8
h5D8
0
62.5
62.5
31.25
6.25
0.62
nM
p-STAT3
STAT3
β-actin

Fig. 2B

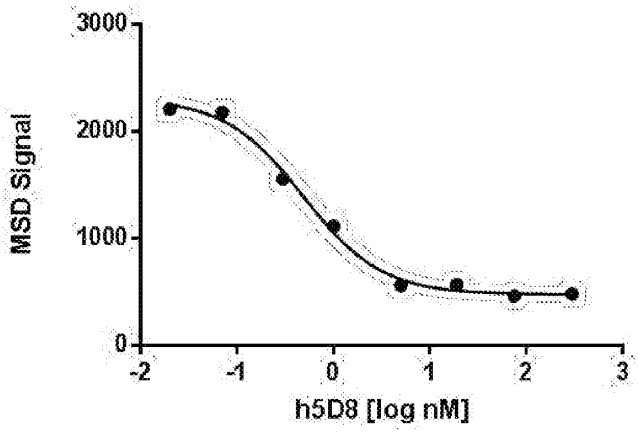
MSD Signal
3000
2000
1000
0
-2
-1
0
1
2
3
h5D8 [log nM]

Fig. 3A

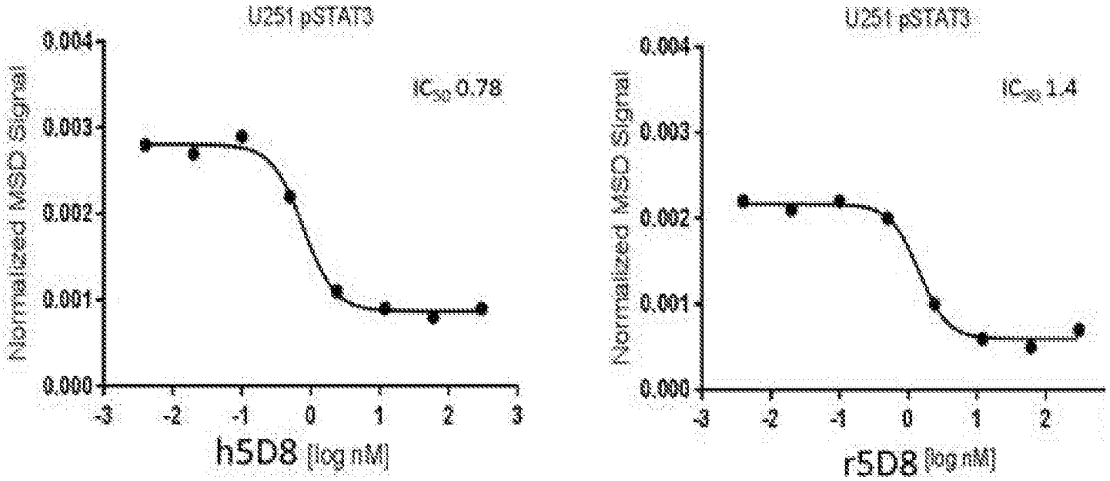
U251 pSTAT3
IC50 0.78
Normalized MSD Signal
0.004
0.003
0.002
0.001
0.000
-3
-2
-1
0
1
2
3
h5D8 [log nM]
U251 pSTAT3
IC50 1.4
Normalized MSD Signal
0.004
0.003
0.002
0.001
0.000
-3
-2
-1
0
1
2
r5D8 [log nM]

Fig. 3B

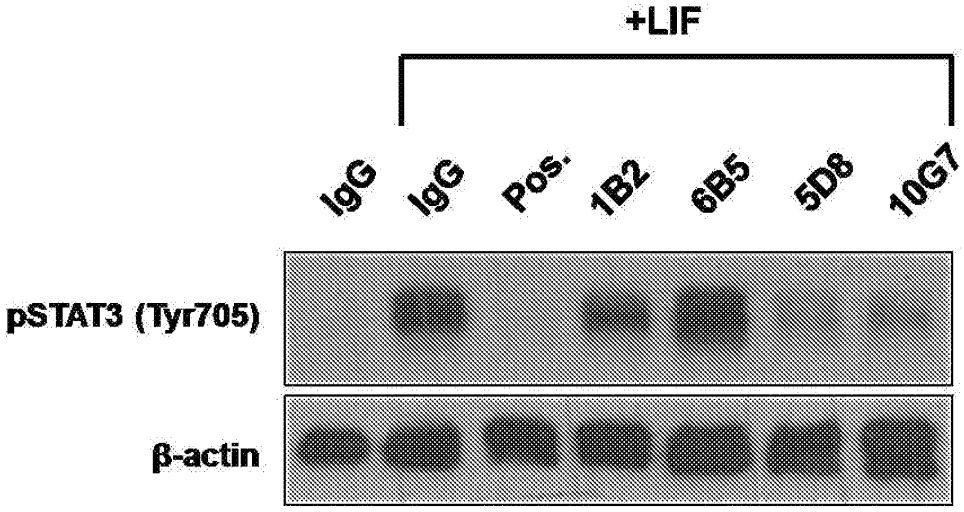

Fig. 4

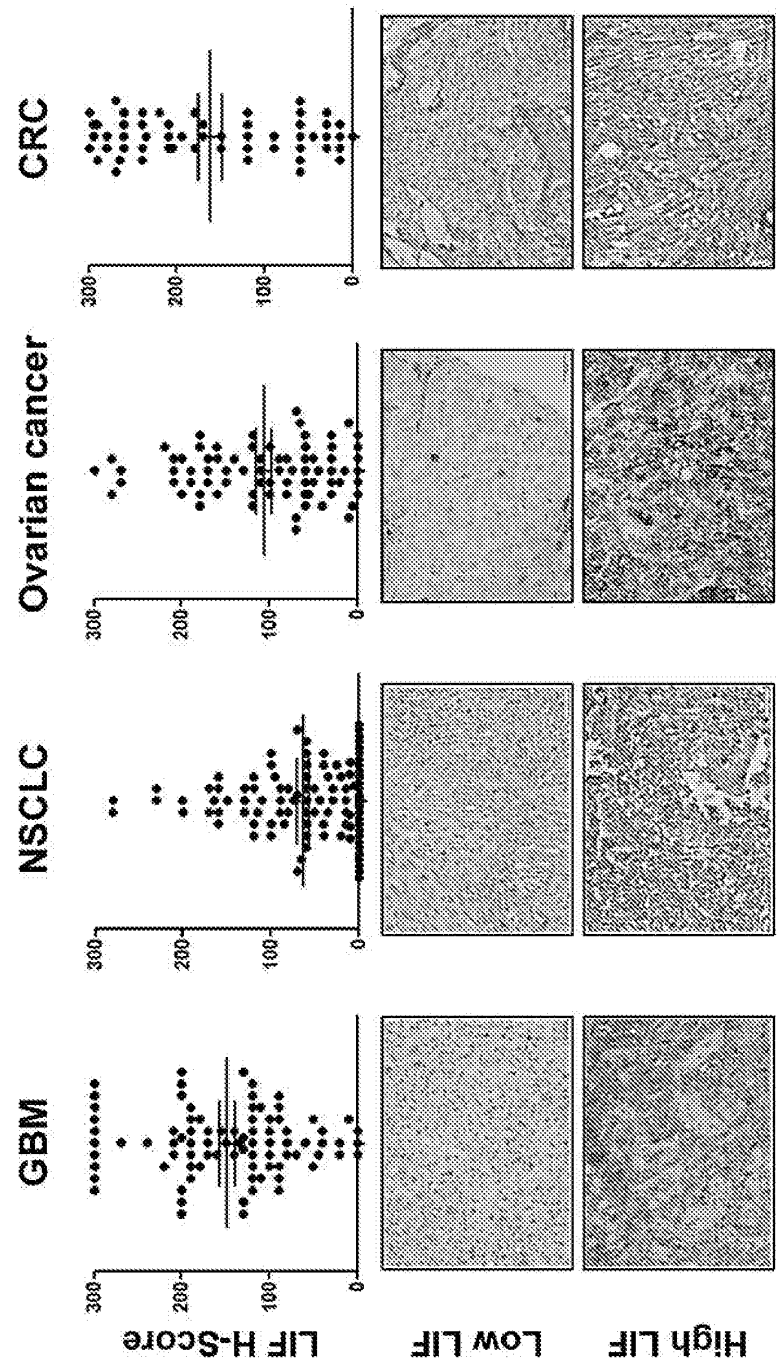
GBM
NSCLC
Ovarian cancer
CRC
LIF H-Score
300
200
100
0
Low LIF
High LIF

Fig. 5

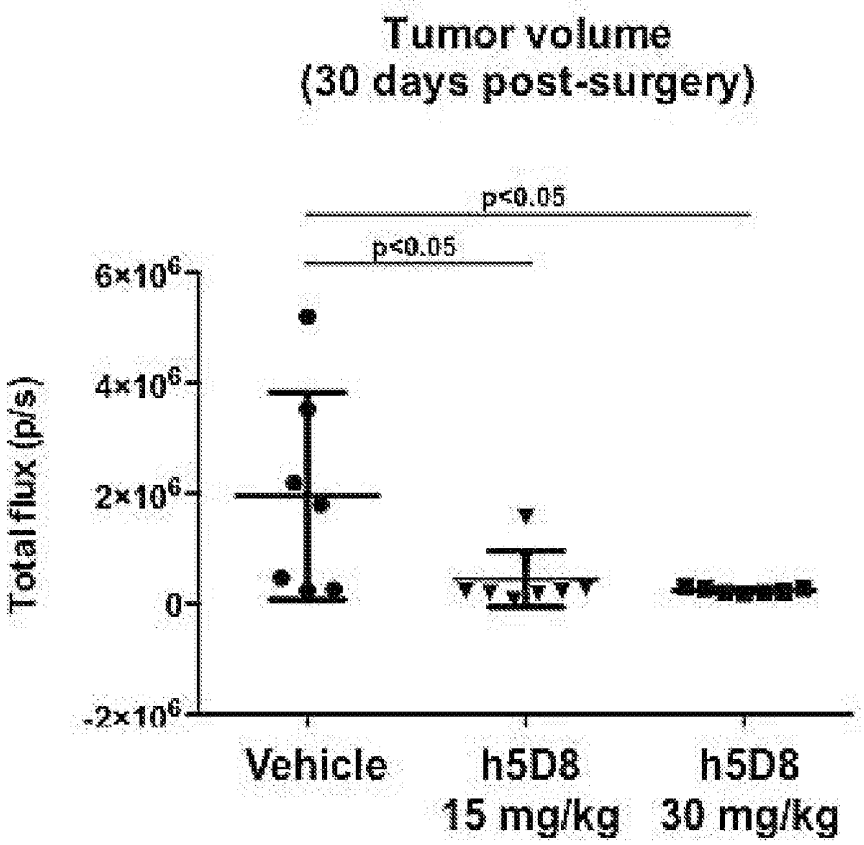
Tumor volume
(30 days post-surgery)
p<0.05
p<0.05
6×10^6
4×10^6
2×10^6
0
-2×10^6
Total flux (p/s)
Vehicle
h5D8
15 mg/kg
h5D8
30 mg/kg

Fig. 6

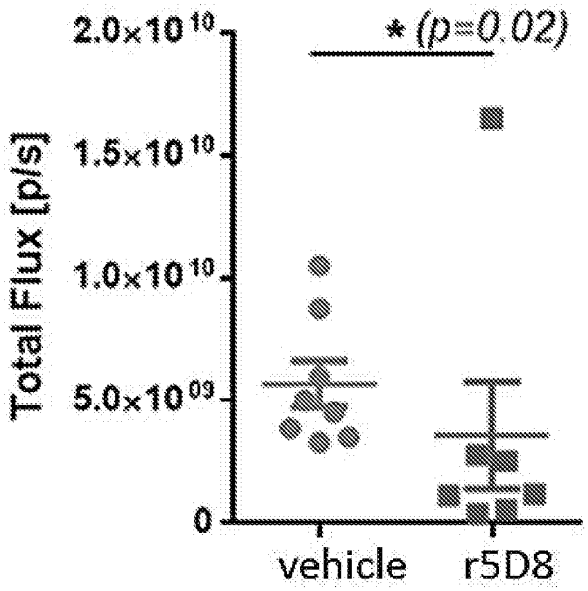
* (p=0.02)
2.0×10 10
1.5×10 10
1.0×10 10
5.0×10 09
0
Total Flux [p/s]
vehicle
r5D8

Fig. 7A

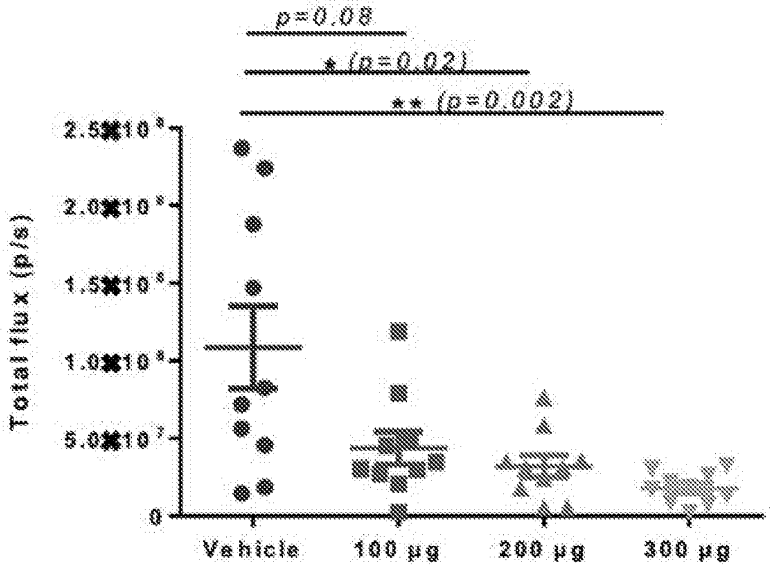
p=0.08
* (p=0.02)
** (p=0.002)
Total flux (p/s)
Vehicle
100 µg
200 µg
300 µg

Fig. 7B

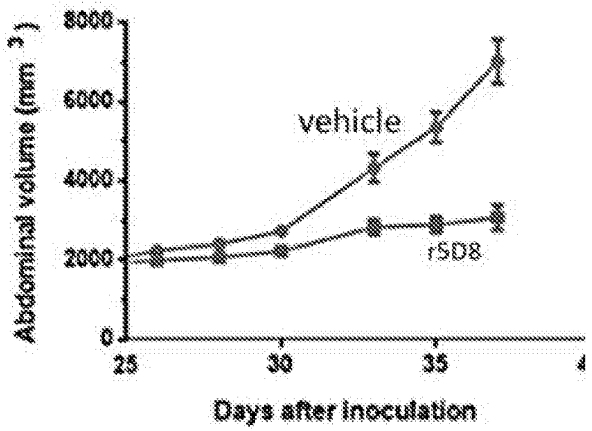

Fig. 8A

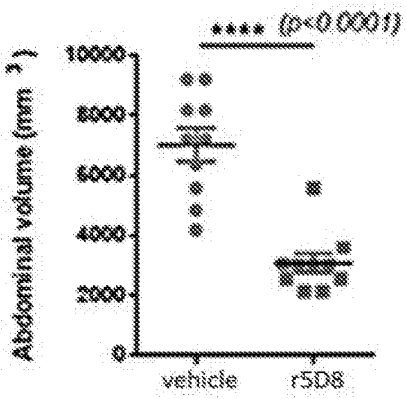

Fig. 8B

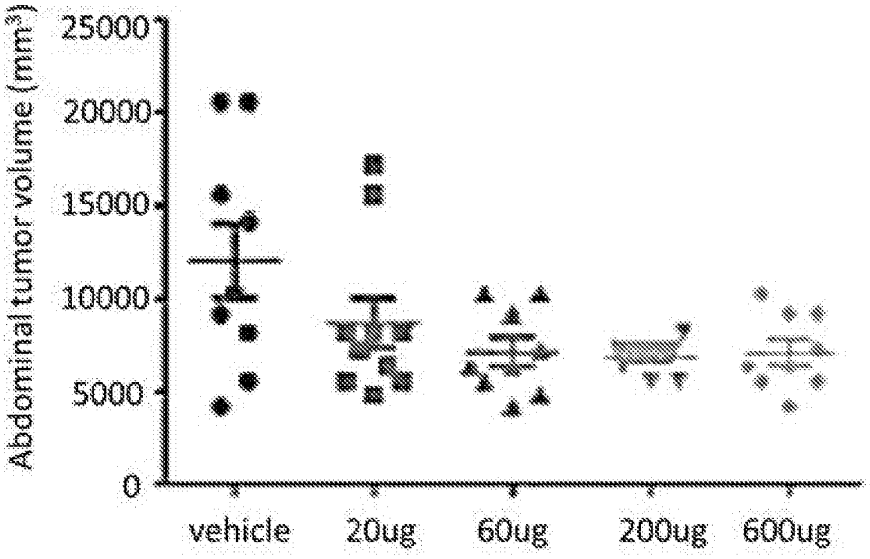

Fig. 8C

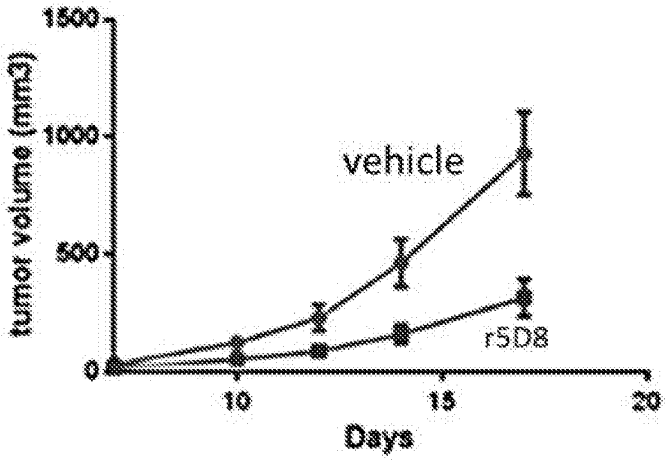
1500
1000
500
0
tumor volume (mm3)
vehicle
r5D8
10
15
20
Days

Fig. 9A

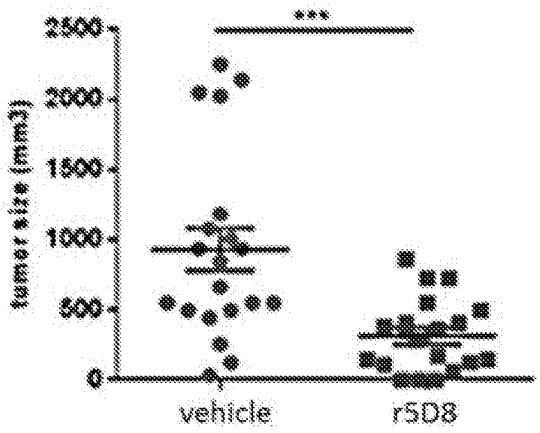
***
2500
2000
1500
1000
500
0
tumor size (mm3)
vehicle
r5D8

Fig. 9B

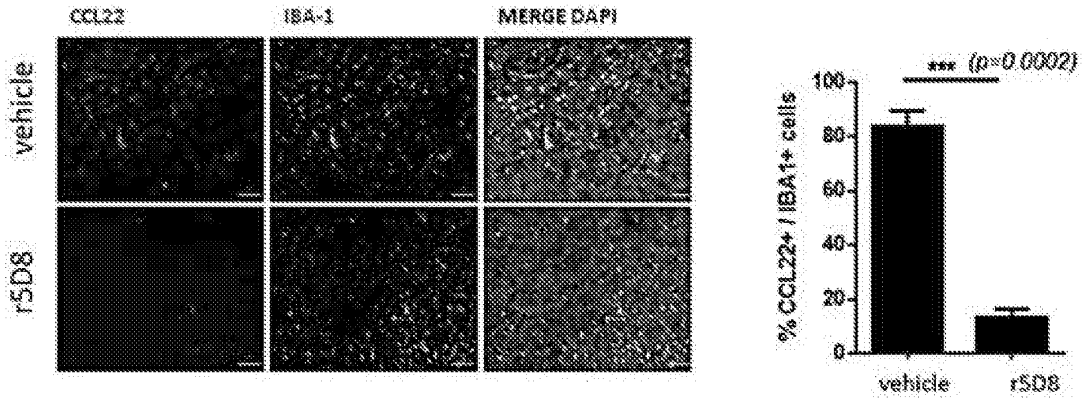
CCL22
IBA-1
MERGE DAPI
vehicle
r5D8
*** (p=0.0002)
% CCL22+ / IBA1+ cells
100
80
60
40
20
0
vehicle
r5D8

Fig. 10A

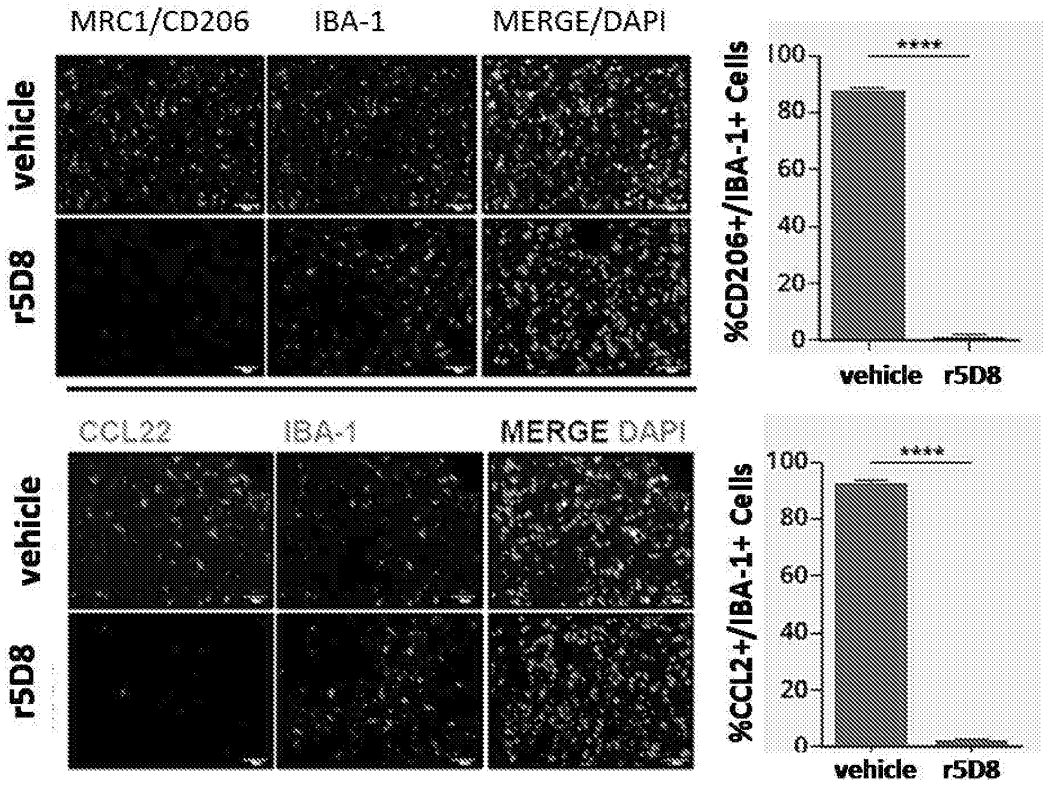
MRC1/CD206
IBA-1
MERGE/DAPI
vehicle
r5D8
%CD206+/IBA-1+ Cells
****
100
80
60
40
20
0
vehicle
r5D8
CCL22
IBA-1
MERGE DAPI
vehicle
r5D8
%CCL2+/IBA-1+ Cells
****
100
80
60
40
20
0
vehicle
r5D8

Fig. 10B

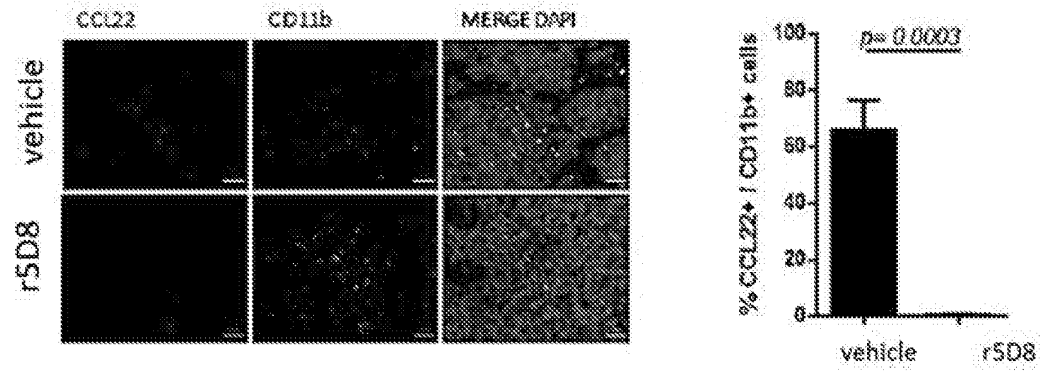

Fig. 10C

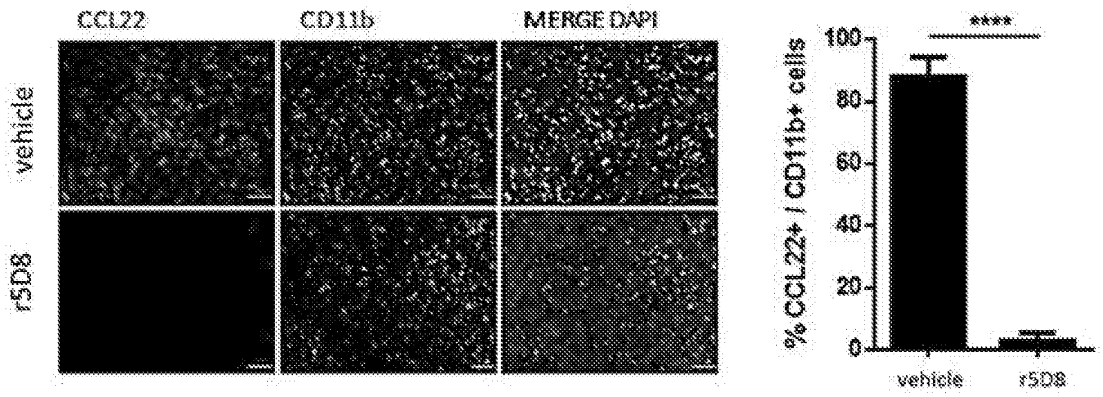

Fig. 10D

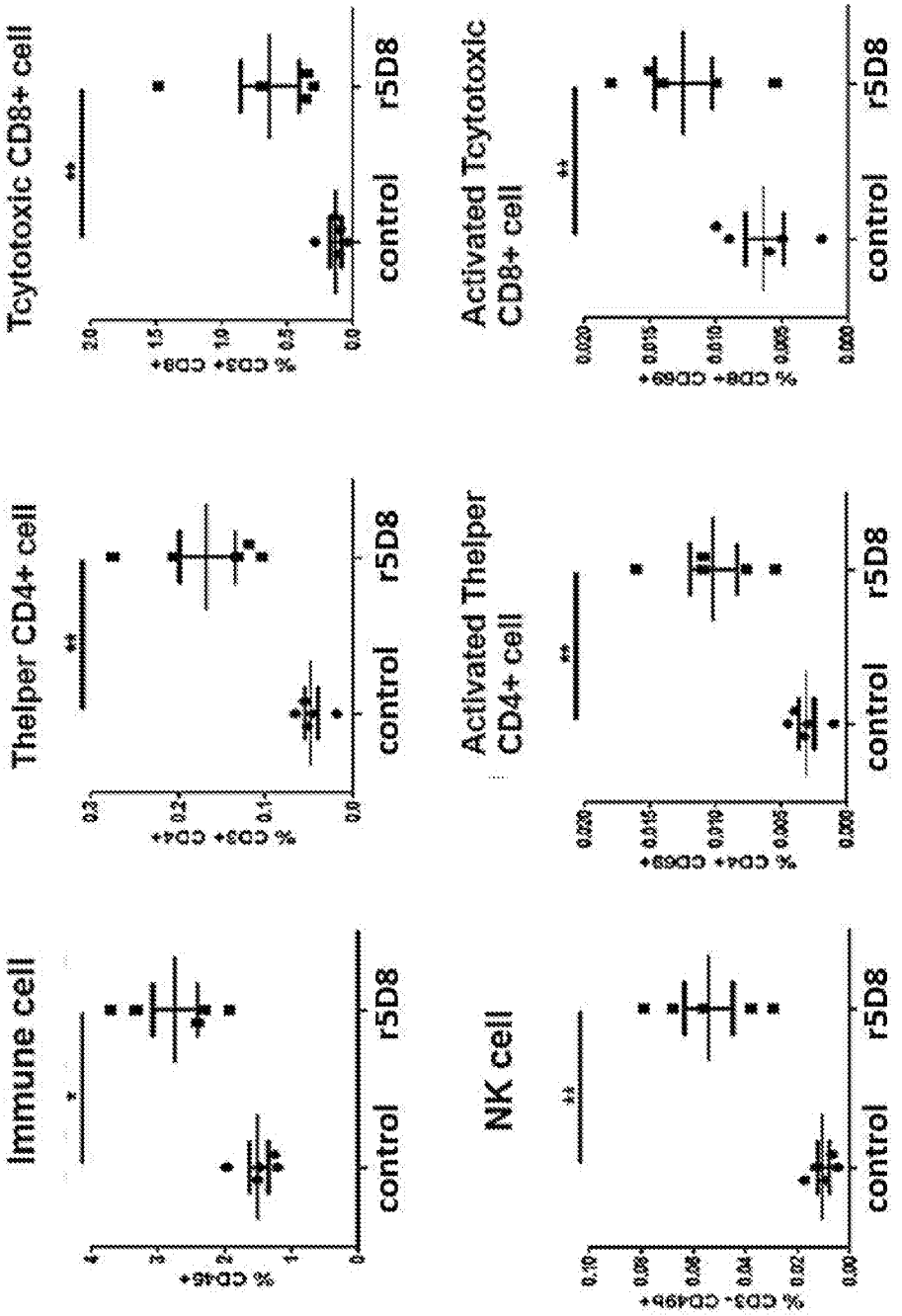
Immune cell
Thelper CD4+ cell
Tcytotoxic CD8+ cell
NK cell
Activated Thelper CD4+ cell
Activated Tcytotoxic CD8+ cell
control
r5D8

Fig. 11A

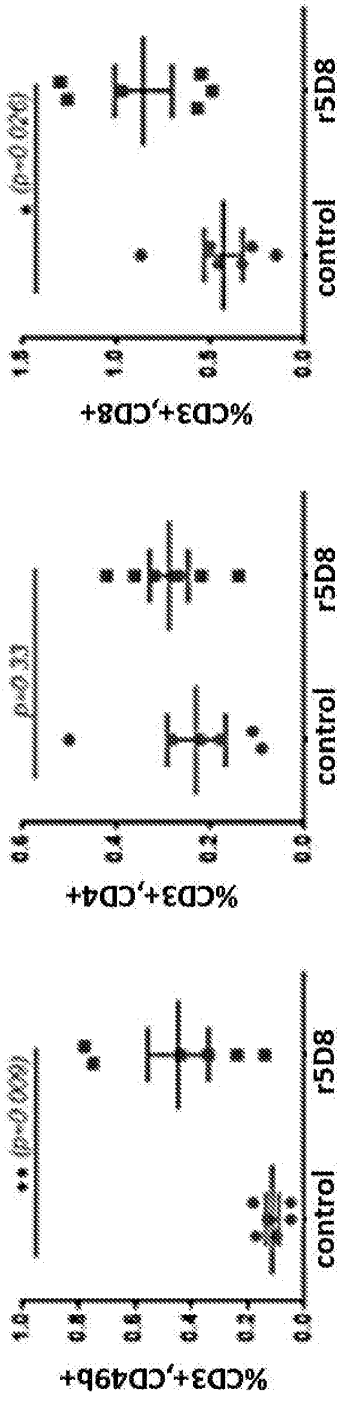
%CD3+,CD49b+
** (p=0.009)
control
r5D8
%CD3+,CD4+
p=0.33
control
r5D8
%CD3+,CD8+
* (p=0.026)
control
r5D8

Fig. 11B

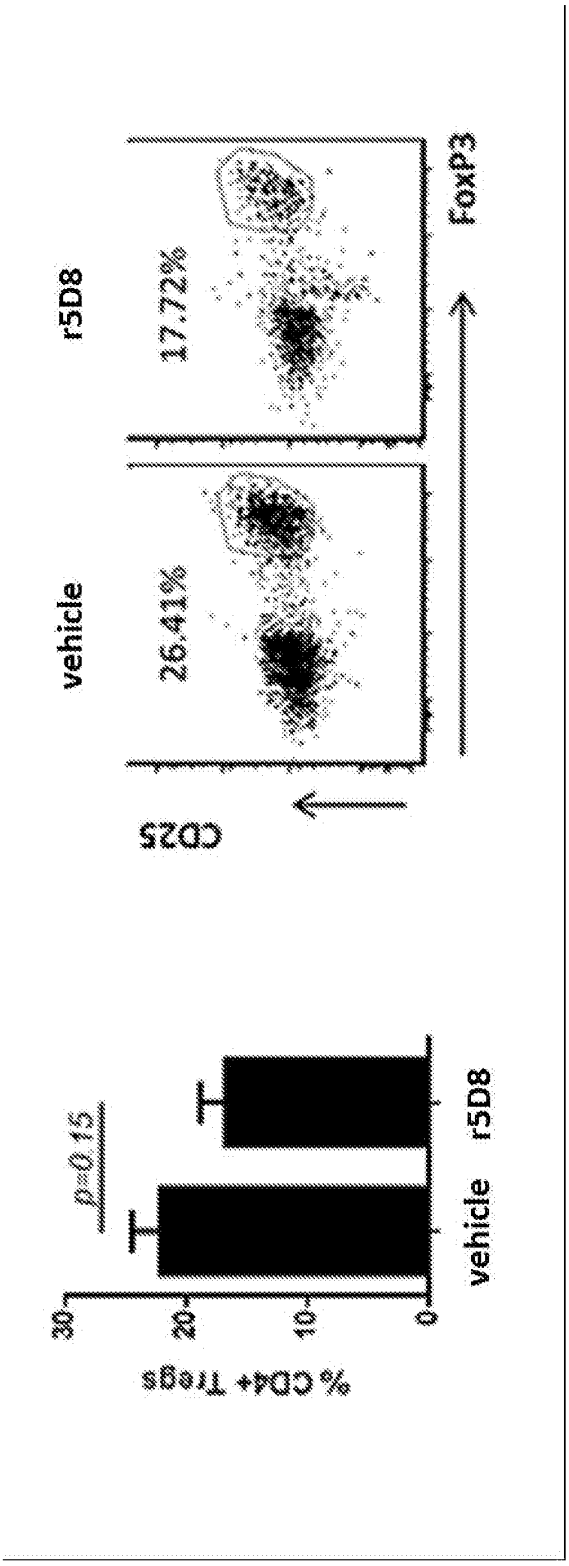
vehicle
r5D8
26.41%
17.72%
CD25
FoxP3
p=0.15
% CD4+ Tregs
30
20
10
0
vehicle
r5D8

Fig. 11C

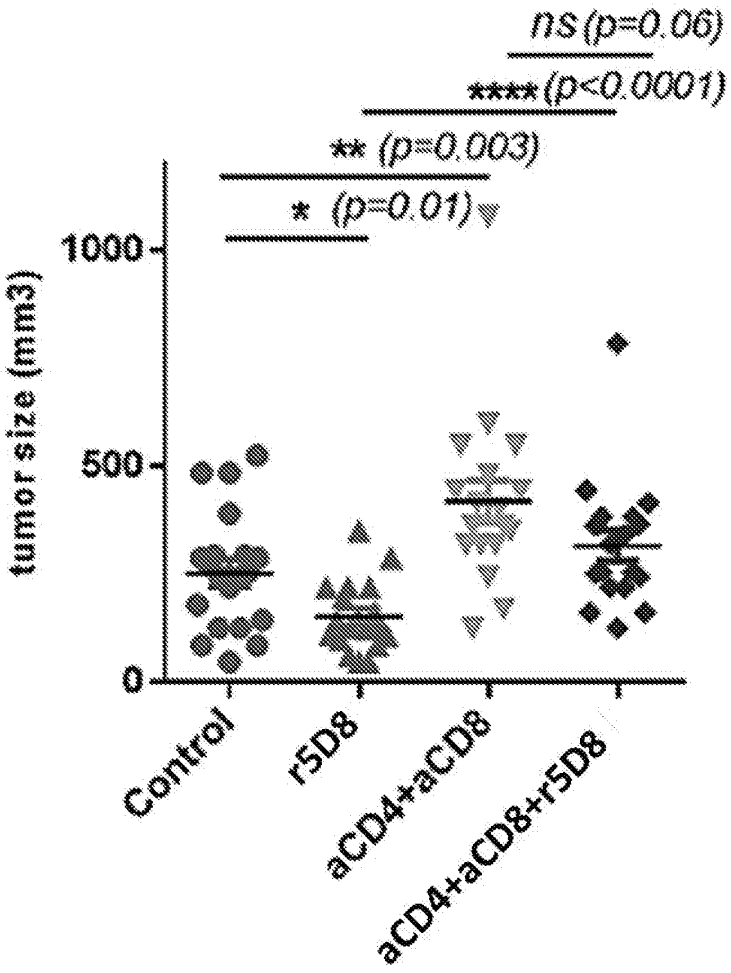
ns (p=0.06)
**** (p<0.0001)
** (p=0.003)
* (p=0.01)
tumor size (mm3)
1000
500
0
Control
r5D8
aCD4+aCD8
aCD4+aCD8+r5D8

Fig. 12

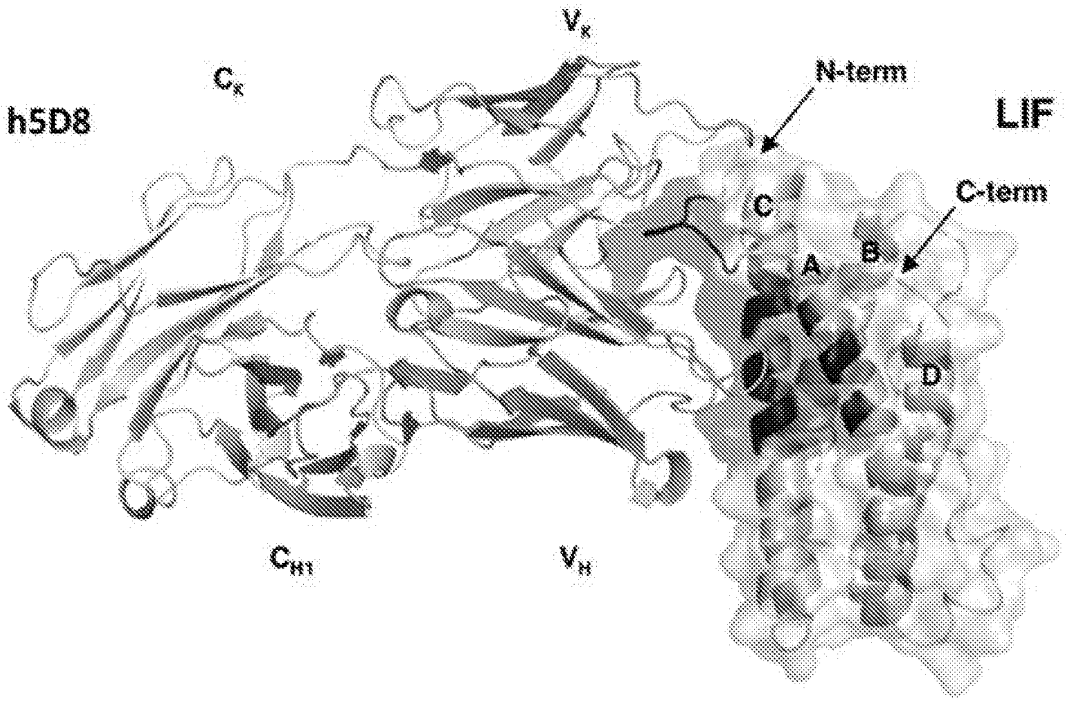

Fig. 13A

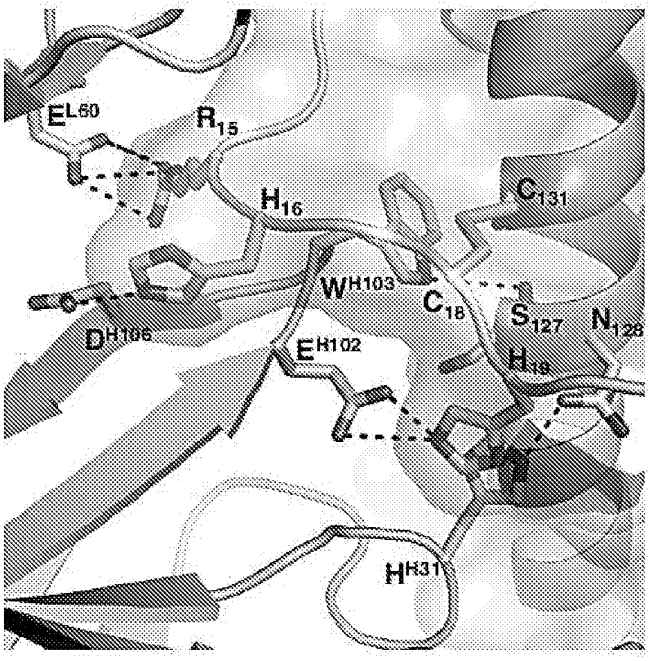

Fig. 13B

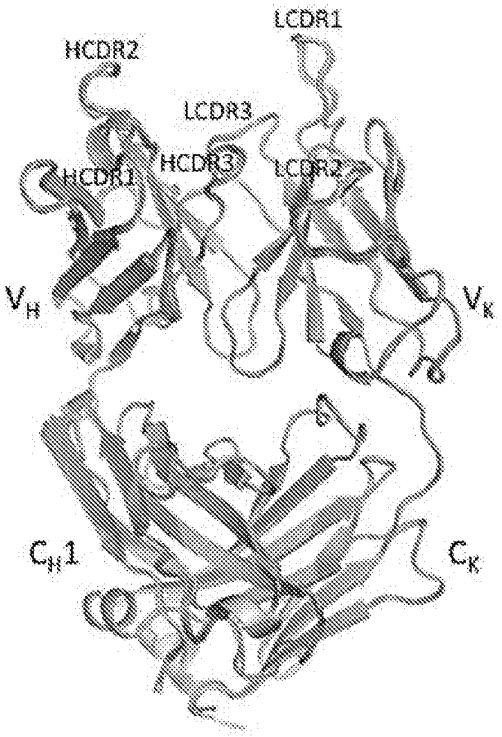

Fig. 14A

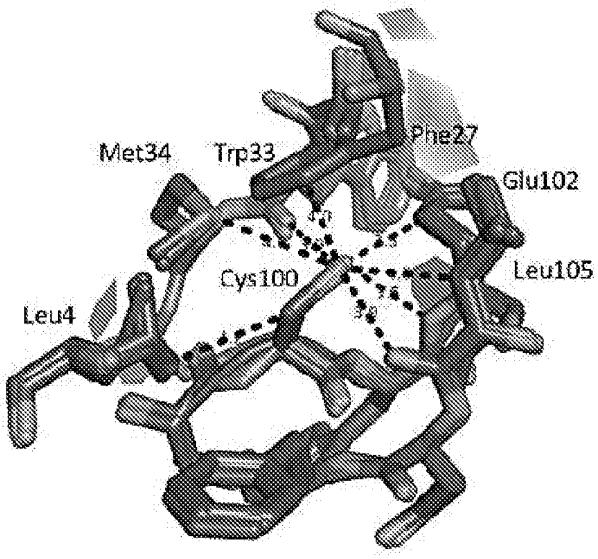

Fig. 14B

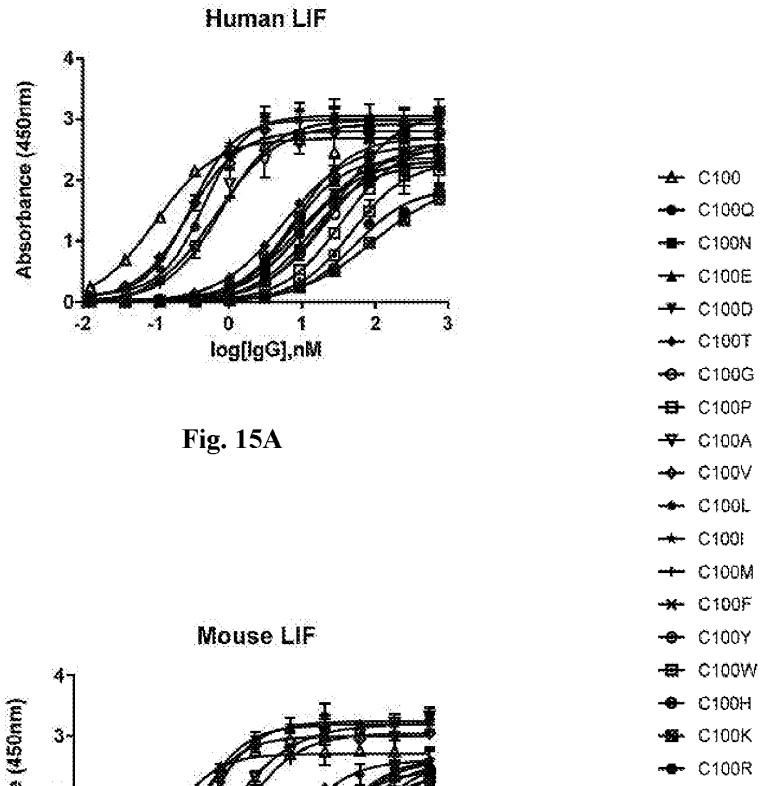

Fig. 15A

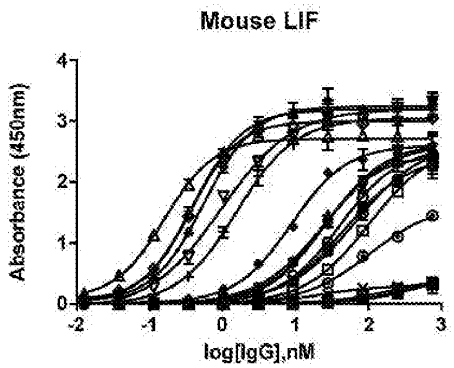

Fig. 15B

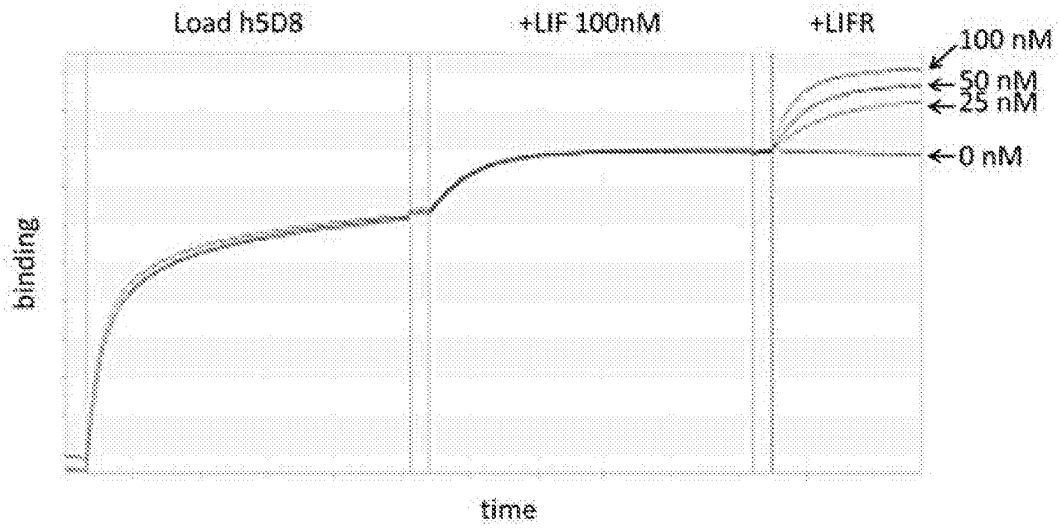

Fig. 16A

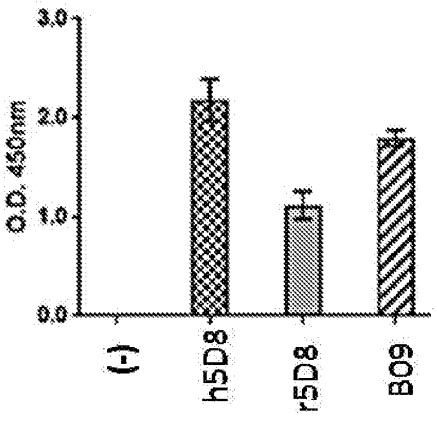

Fig. 16B

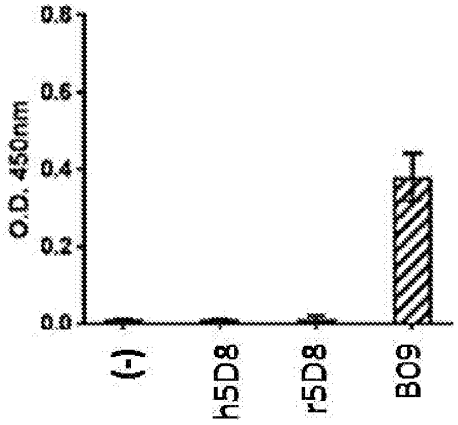

Fig. 16C

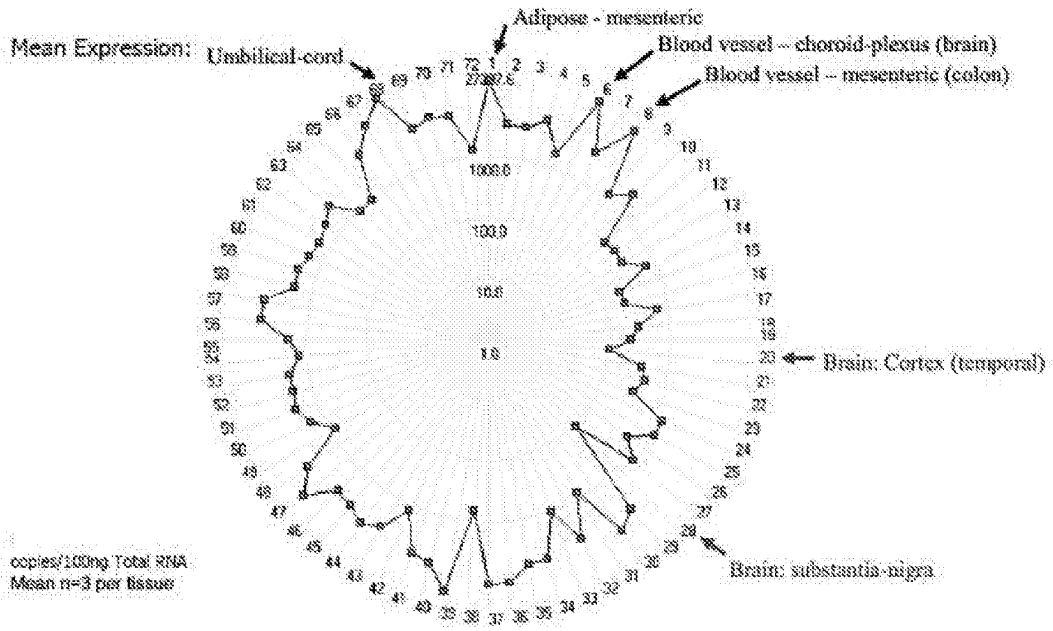
Mean Expression:
Adipose - mesenteric
Blood vessel – choroid-plexus (brain)
Blood vessel – mesenteric (colon)
Umbilical-cord
Brain: Cortex (temporal)
Brain: substantia-nigra
1000.0
100.0
10.0
1.0
copies/100ng Total RNA
Mean n=3 per tissue

Fig. 17A

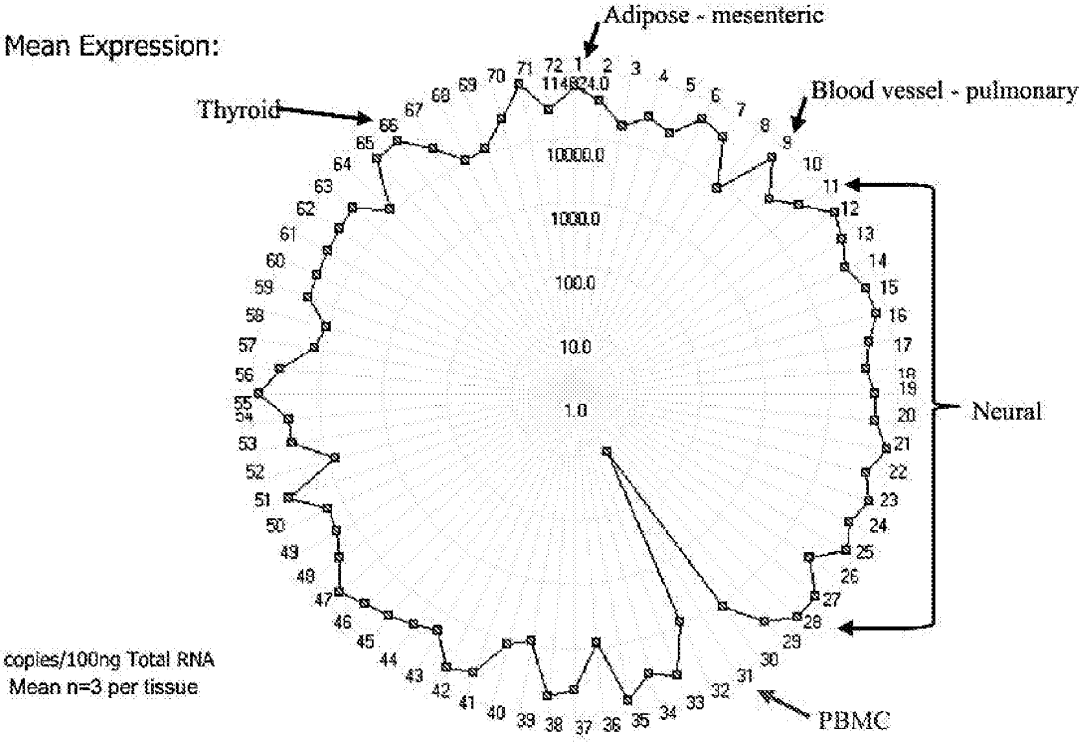
Mean Expression:
Adipose - mesenteric
Thyroid
Blood vessel - pulmonary
Neural
PBMC
10000.0
1000.0
100.0
10.0
1.0
copies/100ng Total RNA
Mean n=3 per tissue

Fig. 17B

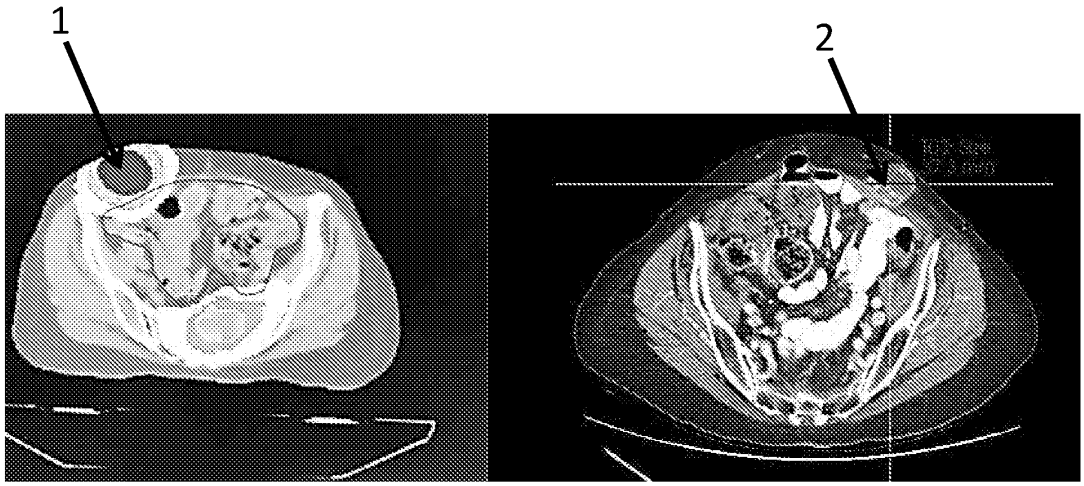

Fig. 18A

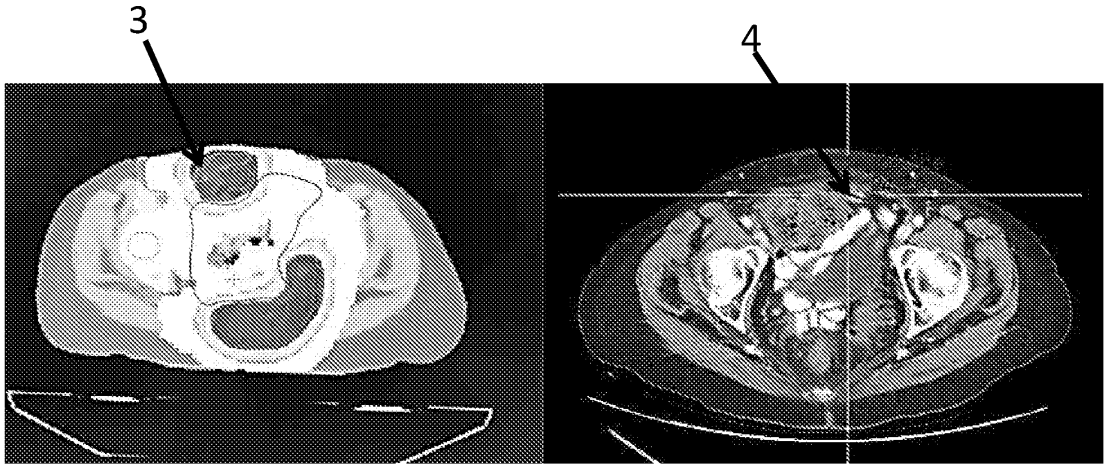

Fig. 18B

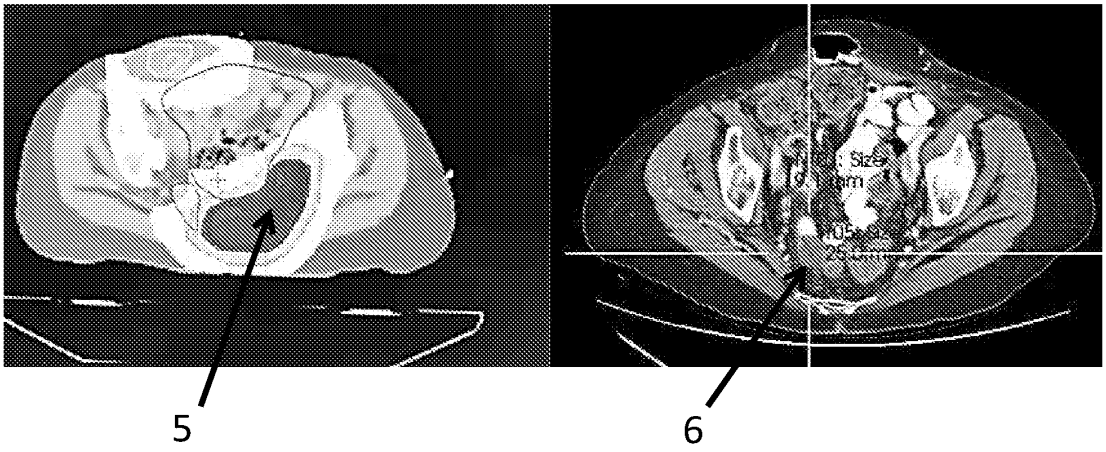

Fig. 18C

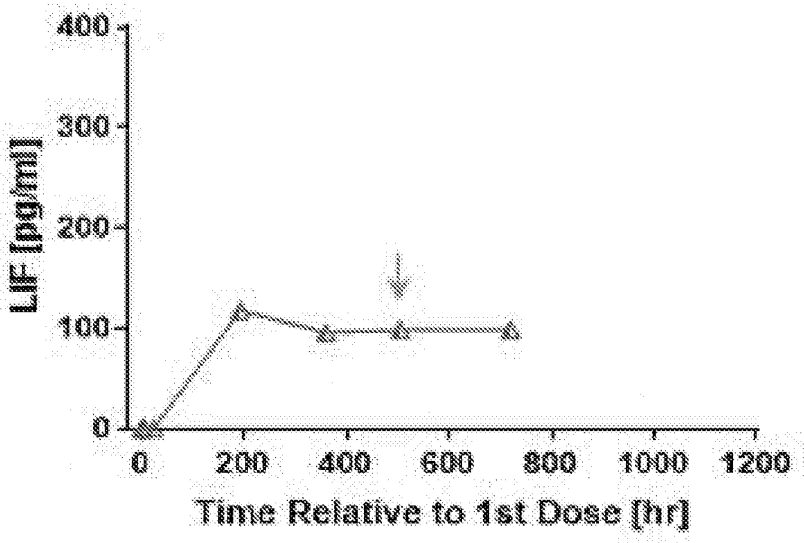

Fig. 19

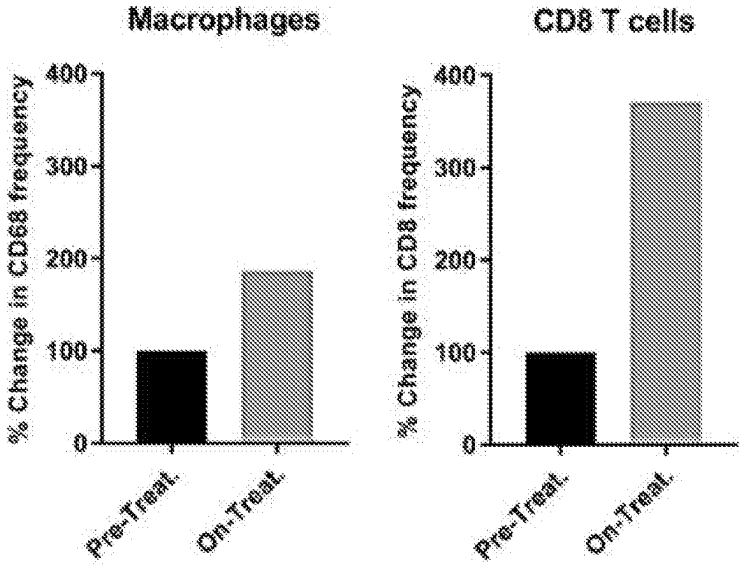

Fig. 20A

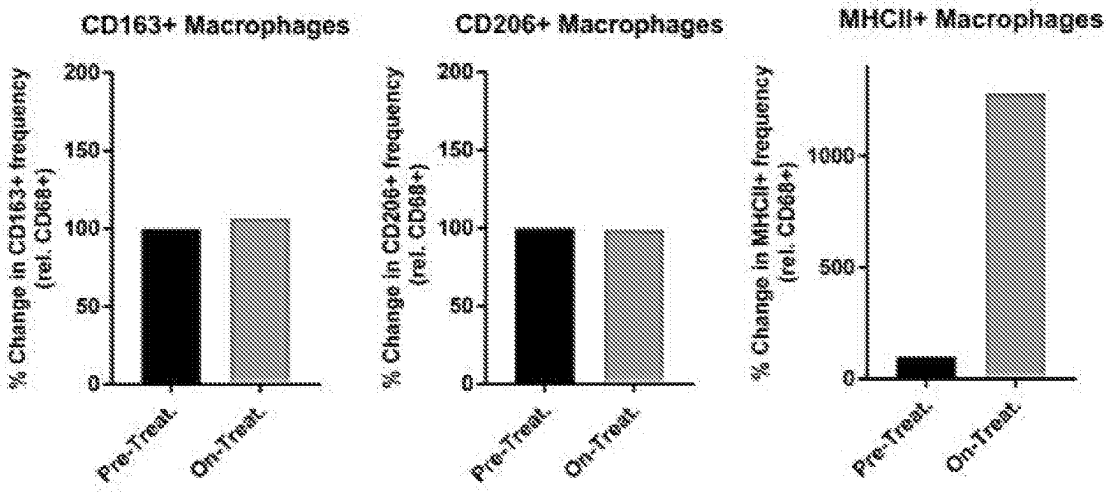

Fig. 20B

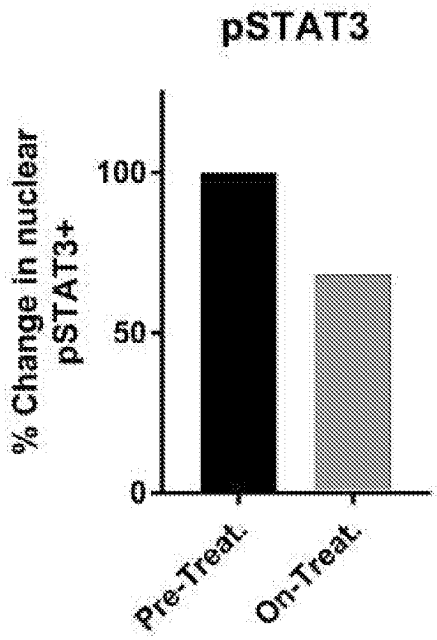

Fig. 20C

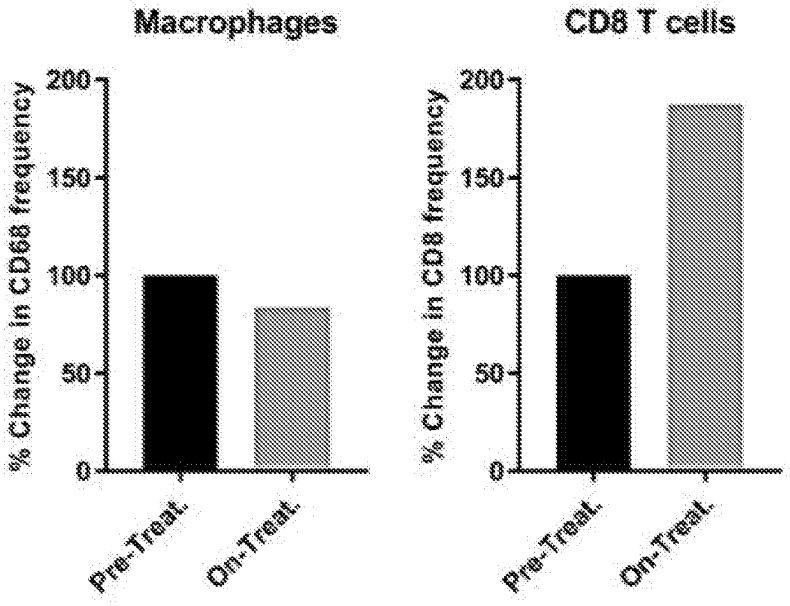

Fig. 21A

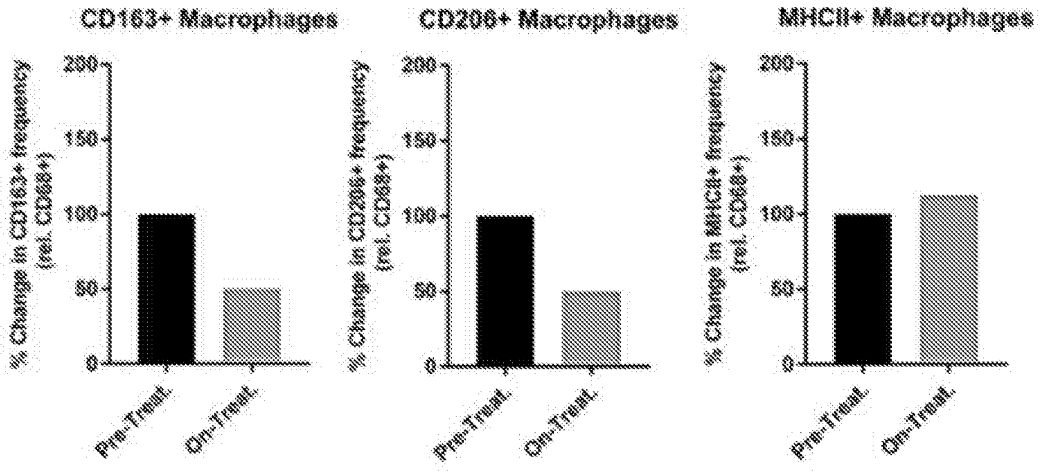

Fig. 21B

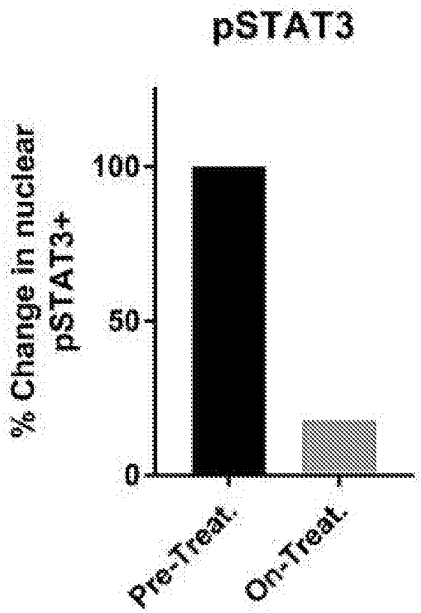

Fig. 21C

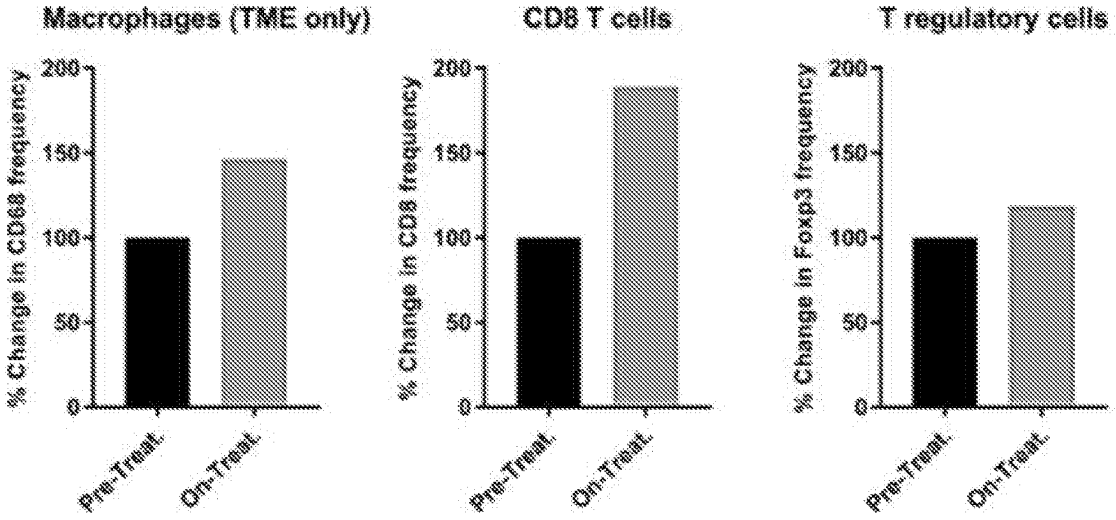
Macrophages (TME only)
CD8 T cells
T regulatory cells
% Change in CD68 frequency
% Change in CD8 frequency
% Change in Foxp3 frequency
200
150
100
50
0
Pre-Treat.
On-Treat.

Fig. 22

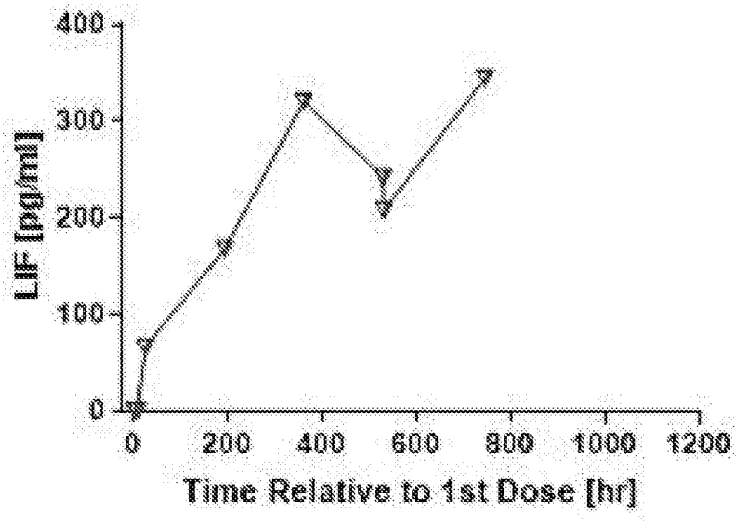
LIF [pg/ml]
400
300
200
100
0
0
200
400
600
800
1000
1200
Time Relative to 1st Dose [hr]

Fig. 23

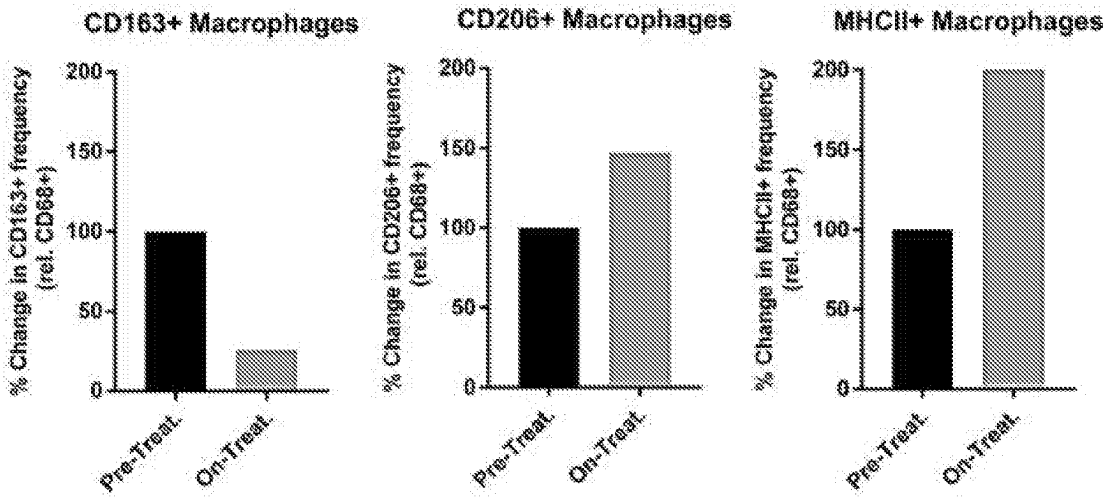
CD163+ Macrophages
CD206+ Macrophages
MHCII+ Macrophages
% Change in CD163+ frequency (rel. CD68+)
% Change in CD206+ frequency (rel. CD68+)
% Change in MHCII+ frequency (rel. CD68+)
200
150
100
50
0
Pre-Treat.
On-Treat.

Fig. 24

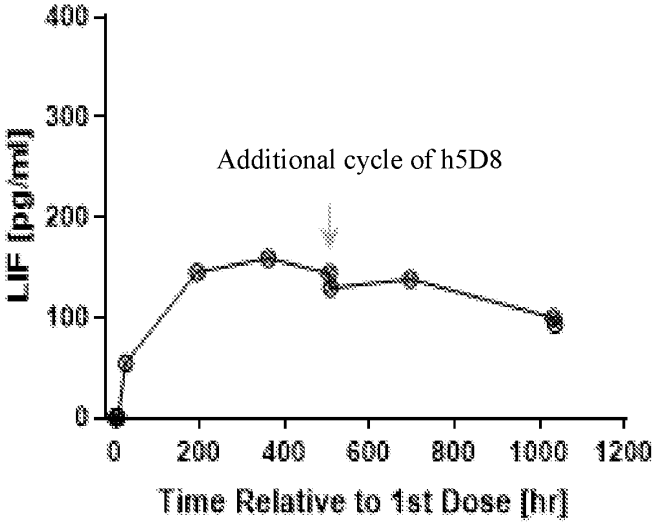
LIF [pg/ml]
400
300
200
100
0
Additional cycle of h5D8
0
200
400
600
800
1000
1200
Time Relative to 1st Dose [hr]

Fig. 25

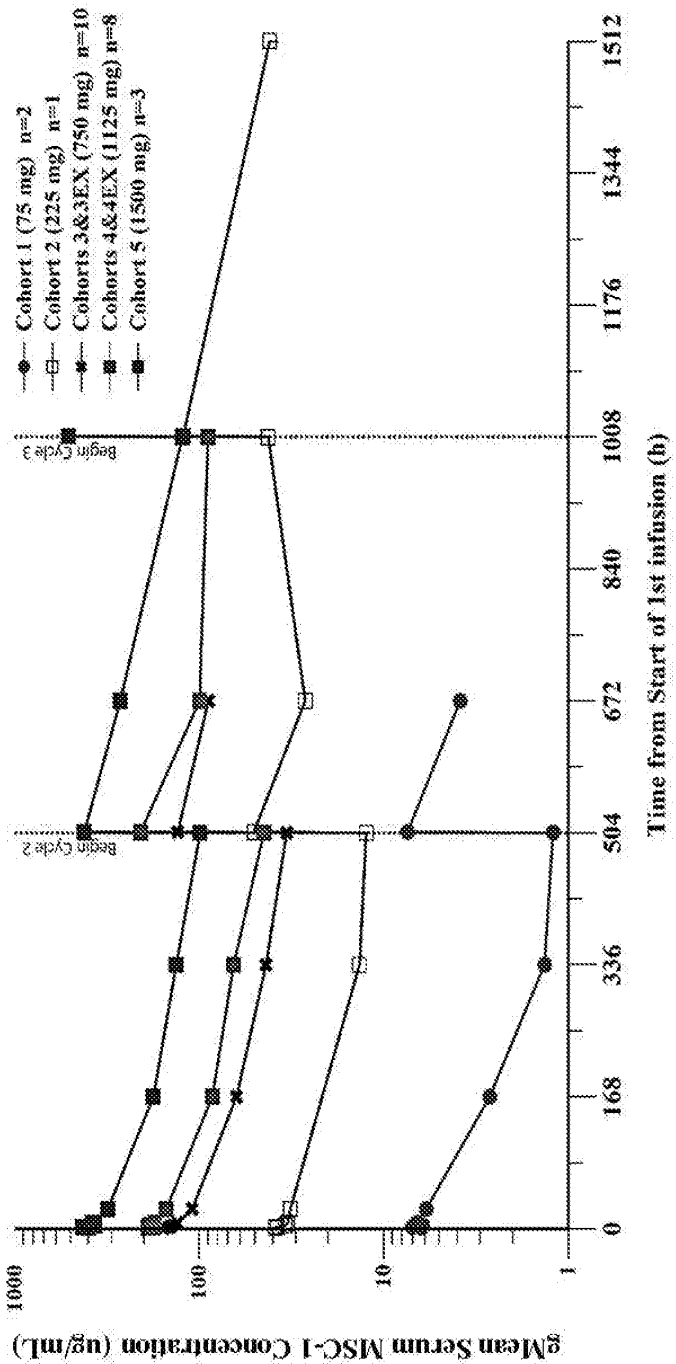
gMean Serum MSC-1 Concentration (ug/mL)
1000
100
10
1
0
168
336
504
672
840
1008
1176
1344
1512
Time from Start of 1st infusion (h)
Begin Cycle 2
Begin Cycle 3
Cohort 1 (75 mg) n=2
Cohort 2 (225 mg) n=1
Cohorts 3&3EX (750 mg) n=10
Cohorts 4&4EX (1125 mg) n=8
Cohort 5 (1500 mg) n=3

Fig. 26

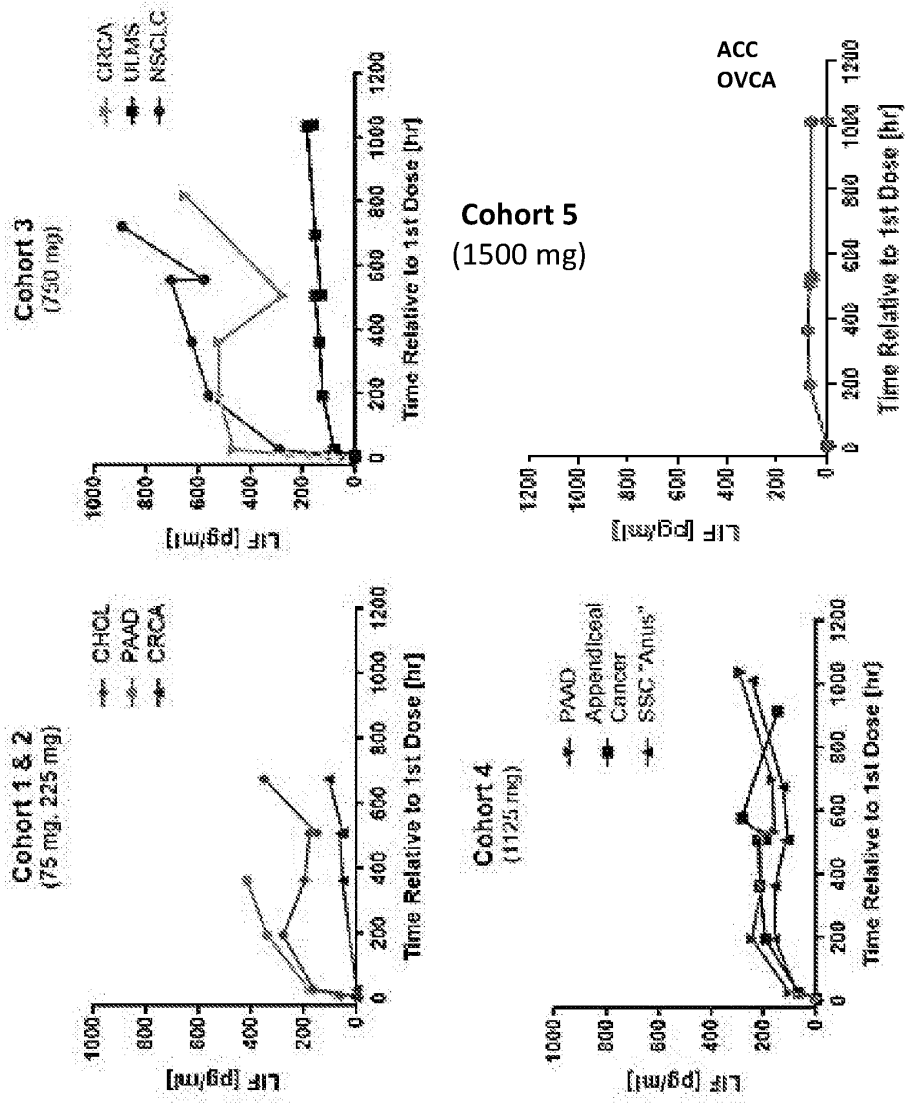
Cohort 1 & 2
(75 mg, 225 mg)
CHOL
PAAD
CRCA
LIF [pg/ml]
Time Relative to 1st Dose [hr]
Cohort 3
(750 mg)
CRCA
ULMS
NSCLC
LIF [pg/ml]
Time Relative to 1st Dose [hr]
Cohort 4
(1125 mg)
PAAD
Appendiceal Cancer
SSC "Anus"
LIF [pg/ml]
Time Relative to 1st Dose [hr]
Cohort 5
(1500 mg)
ACC
OVCA
LIF [pg/ml]
Time Relative to 1st Dose [hr]

Fig. 27A

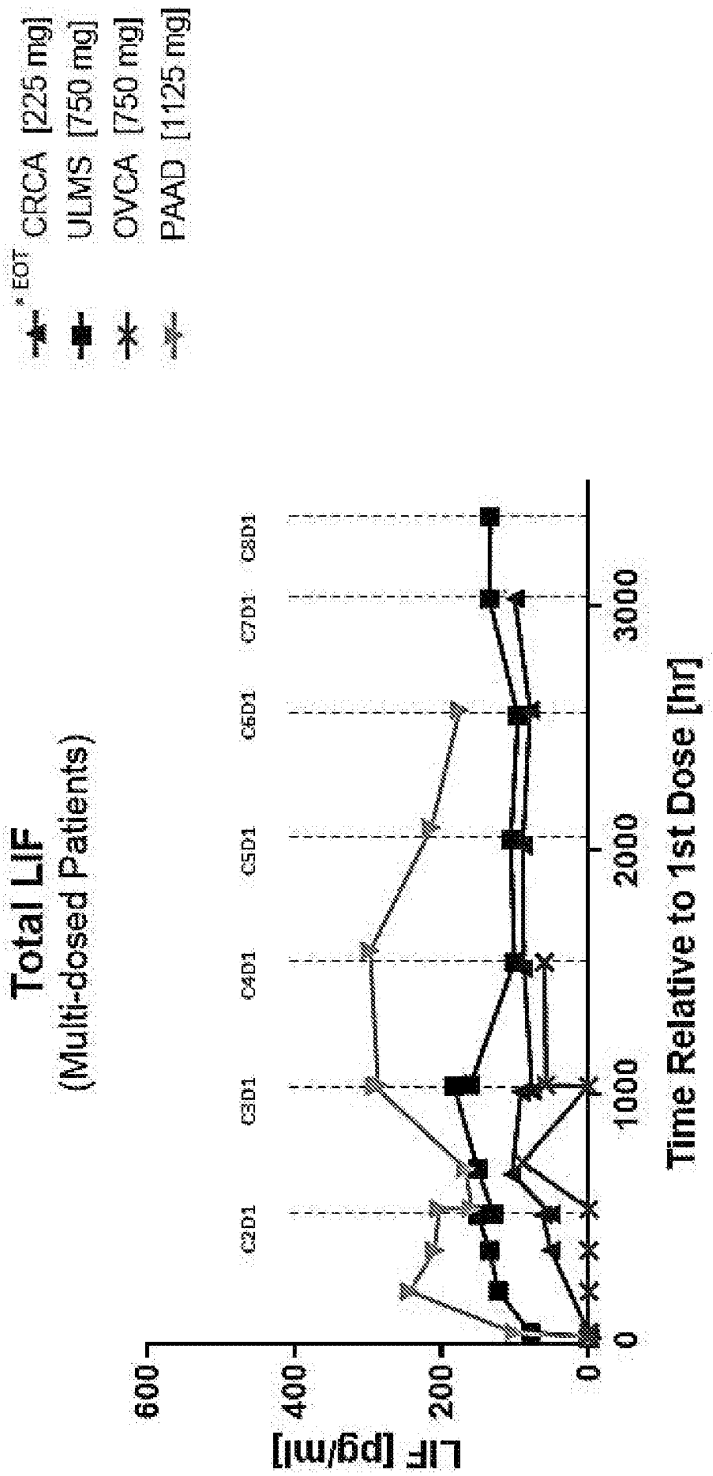
Total LIF
(Multi-dosed Patients)
EOT CRCA [225 mg]
ULMS [750 mg]
OVCA [750 mg]
PAAD [1125 mg]
C2D1
C3D1
C4D1
C5D1
C6D1
C7D1
C8D1
LIF [pg/ml]
600
400
200
0
0
1000
2000
3000
Time Relative to 1st Dose [hr]

Fig. 27B