Figure 1

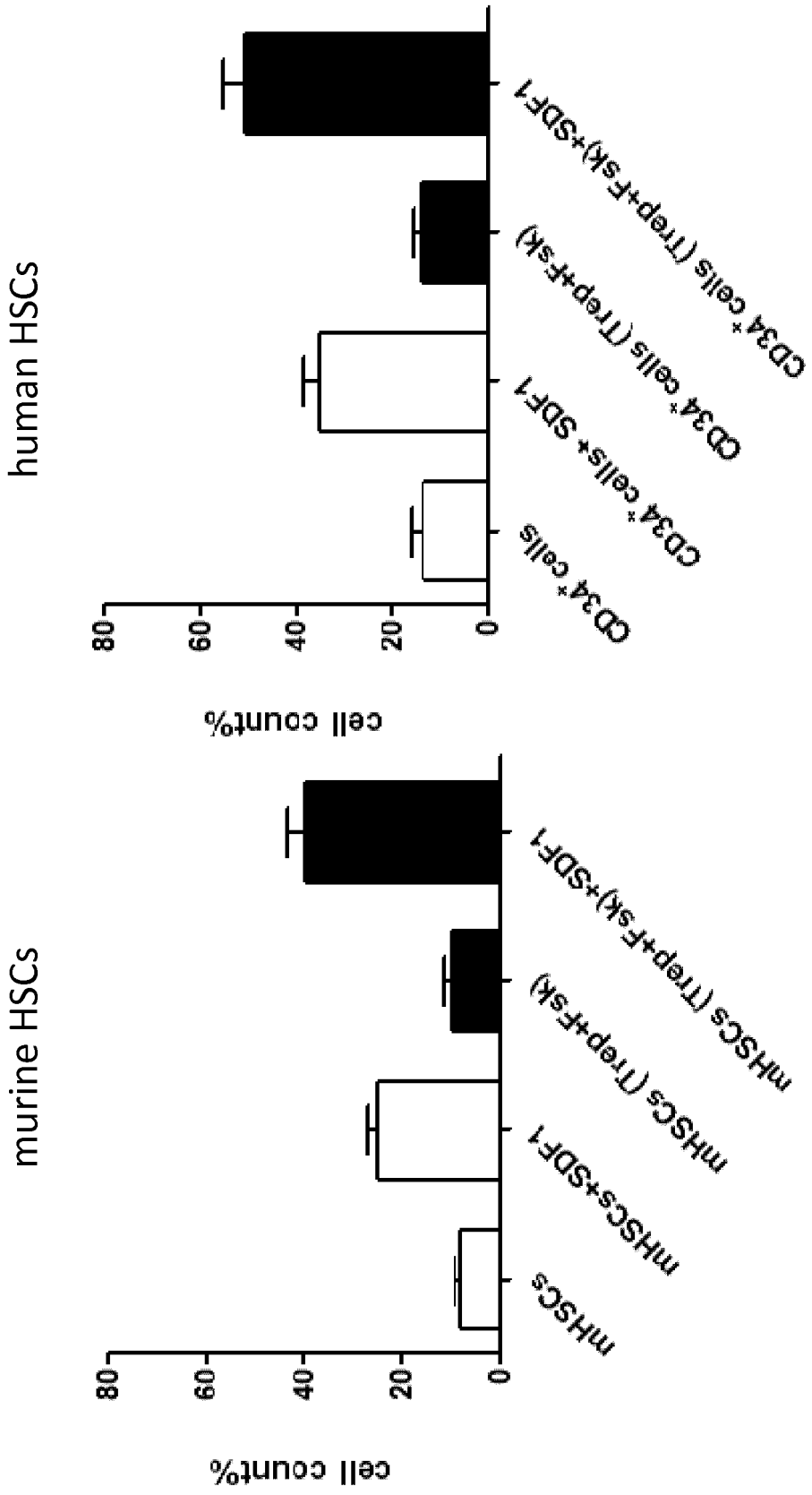

human HSCs
cell count%
0
20
40
60
80
CD34+ cells
CD34+ cells+ SDF-1
CD34+ cells (Trep+F sk)
CD34+ cells (Trep+F sk)+SDF-1
murine HSCs
cell count%
0
20
40
60
80
mHSCs
mHSCs+SDF-1
mHSCs (Trep+F sk)
mHSCs (Trep+F sk)+SDF-1

Figure 2

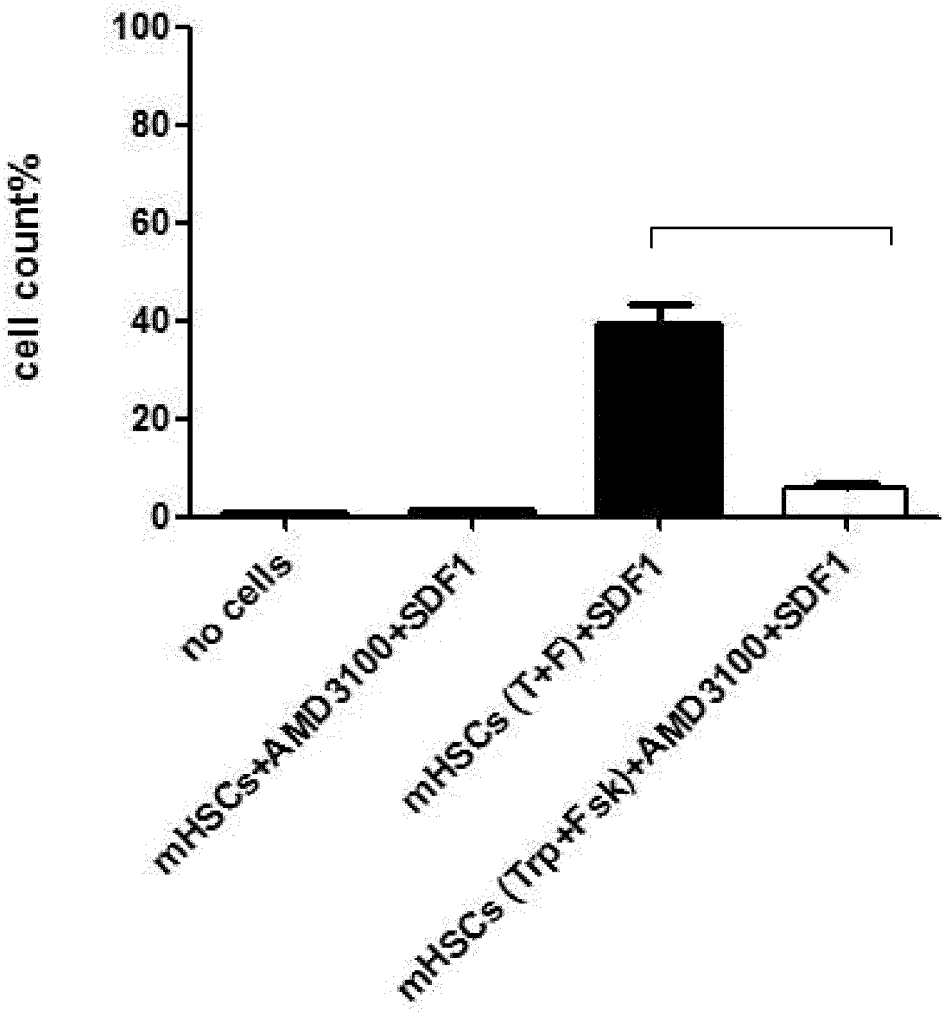

100
80
60
40
20
0
cell count%
no cells
mHSCs+AMD3100+SDF1
mHSCs (T+F)+SDF1
mHSCs (Trp+Fsk)+AMD3100+SDF1

Figure 3

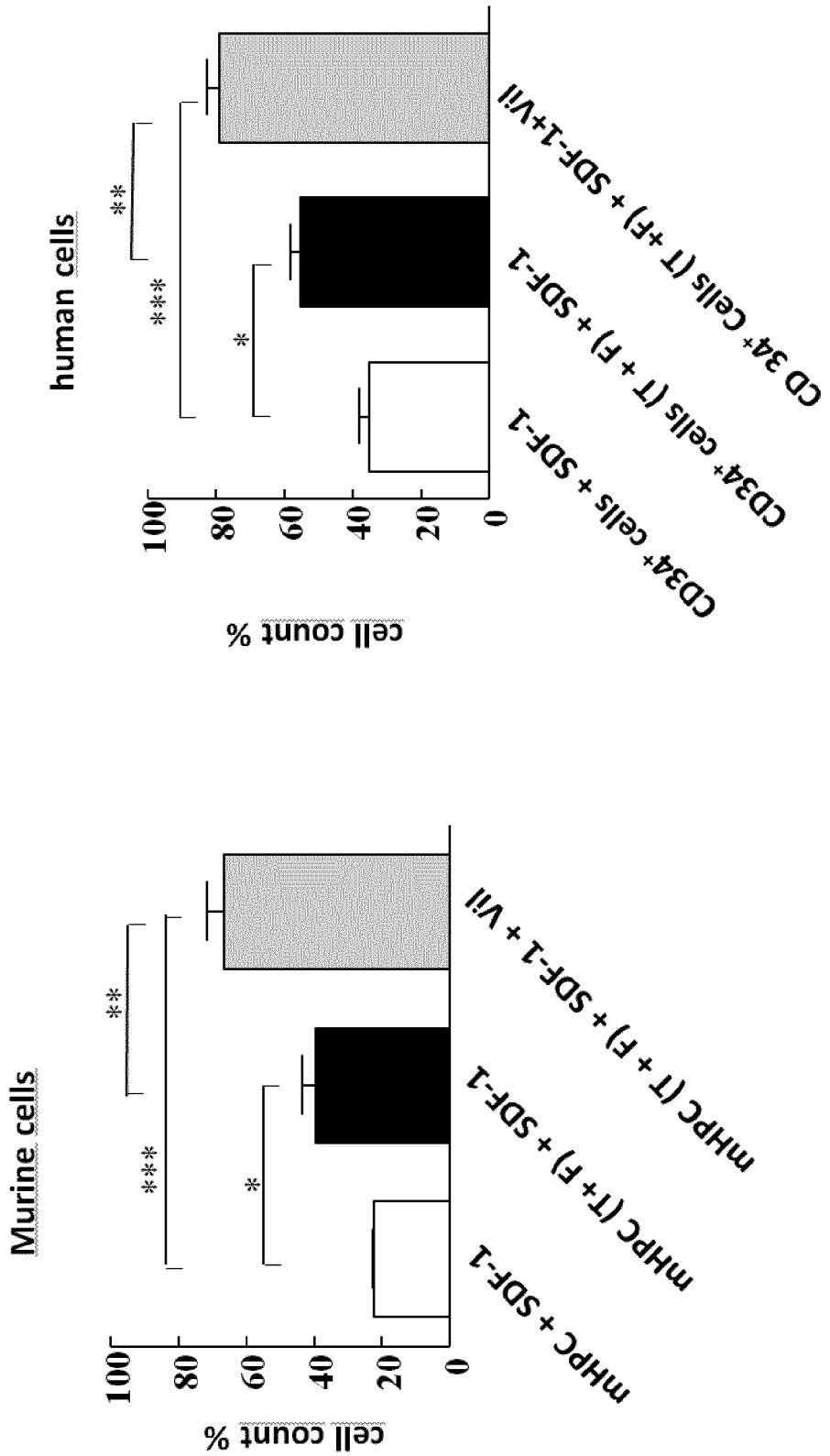

human cells
cell count %
100
80
60
40
20
0
**
***
*
CD34+ cells + SDF-1
CD34+ cells (T +F) + SDF-1
CD 34+ cells (T +F) + SDF-1+Vii
Murine cells
cell count %
100
80
60
40
20
0
**
***
*
mHPC + SDF-1
mHPC (T+ F) + SDF-1
mHPC (T + F) + SDF-1 + Vii

Figure 4

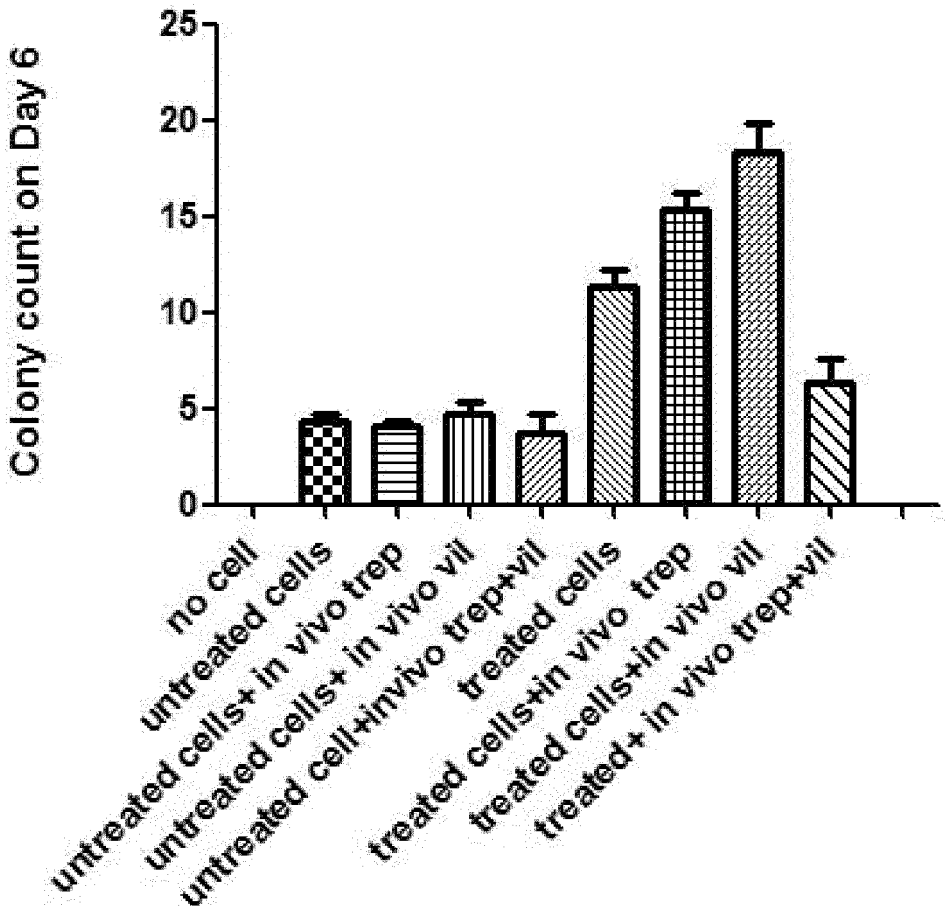

Colony count on Day 6
25
20
15
10
5
0
no cell
untreated cells
untreated cells+ in vivo trep
untreated cells+ in vivo vil
untreated cells+invivo trep+vil
treated cells
treated cells+in vivo trep
treated cells+in vivo vil
treated+ in vivo trep+vil

Figure 5

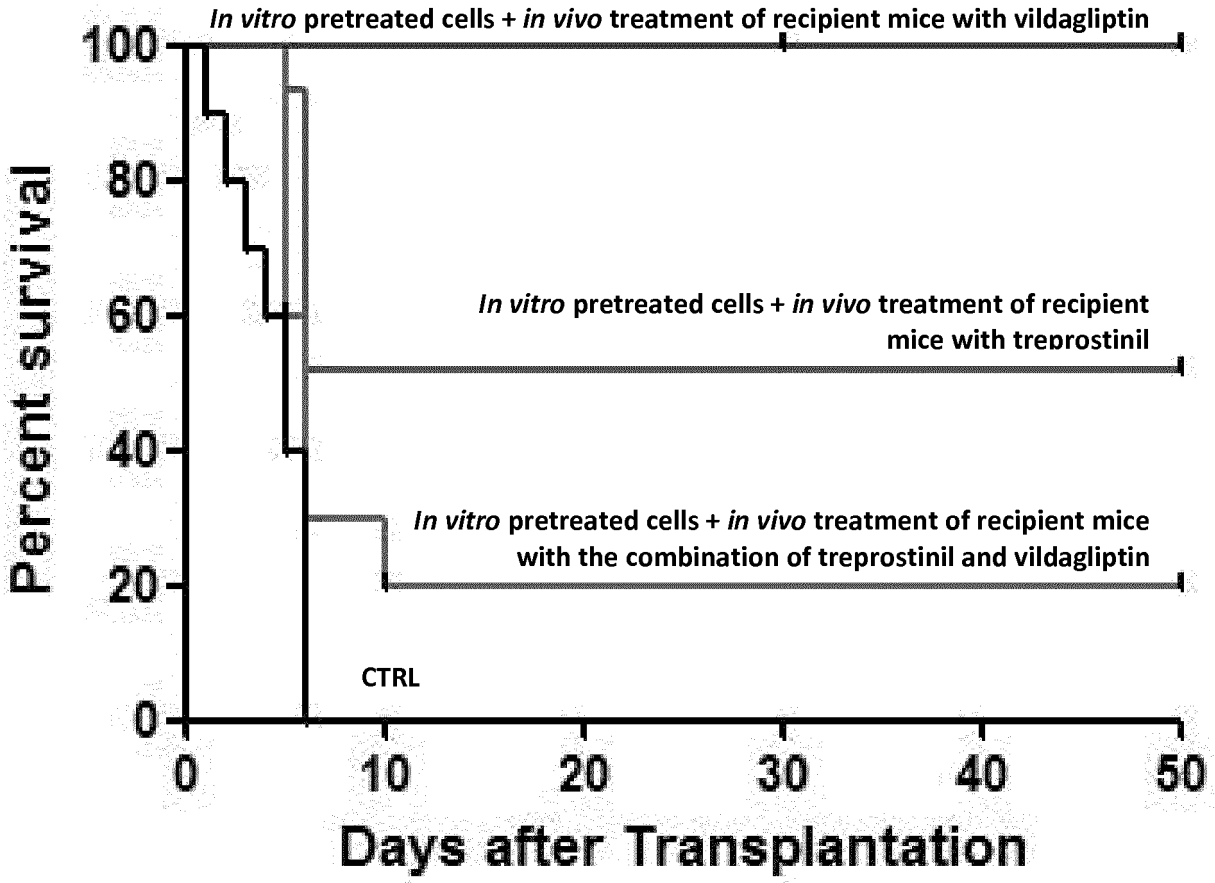

In vitro pretreated cells + *in vivo* treatment of recipient mice with vildagliptin
In vitro pretreated cells + *in vivo* treatment of recipient mice with treprostinil
In vitro pretreated cells + *in vivo* treatment of recipient mice with the combination of treprostinil and vildagliptin
CTRL
Percent survival
100
80
60
40
20
0
0
10
20
30
40
50
Days after Transplantation

Figure 6

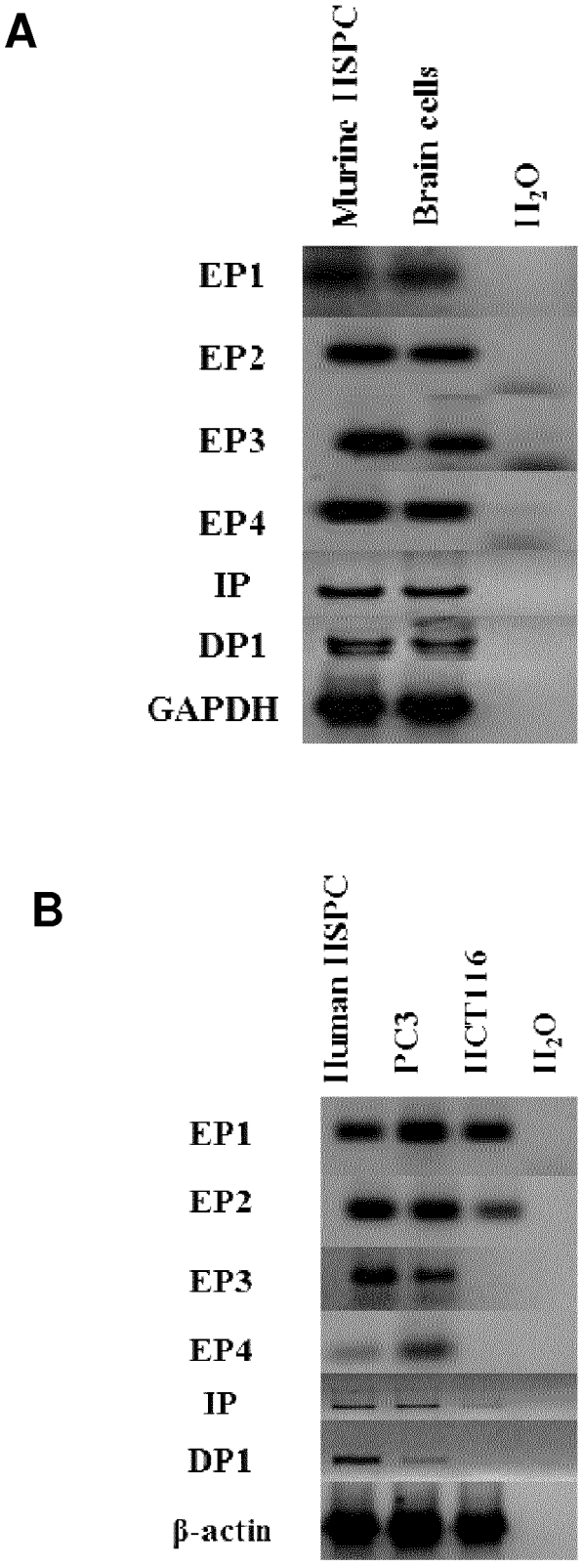

A
Murine HSPC
Brain cells
H2O
EP1
EP2
EP3
EP4
IP
DP1
GAPDH
B
Human HSPC
PC3
HCT116
H2O
EP1
EP2
EP3
EP4
IP
DP1
β-actin

Figure 7

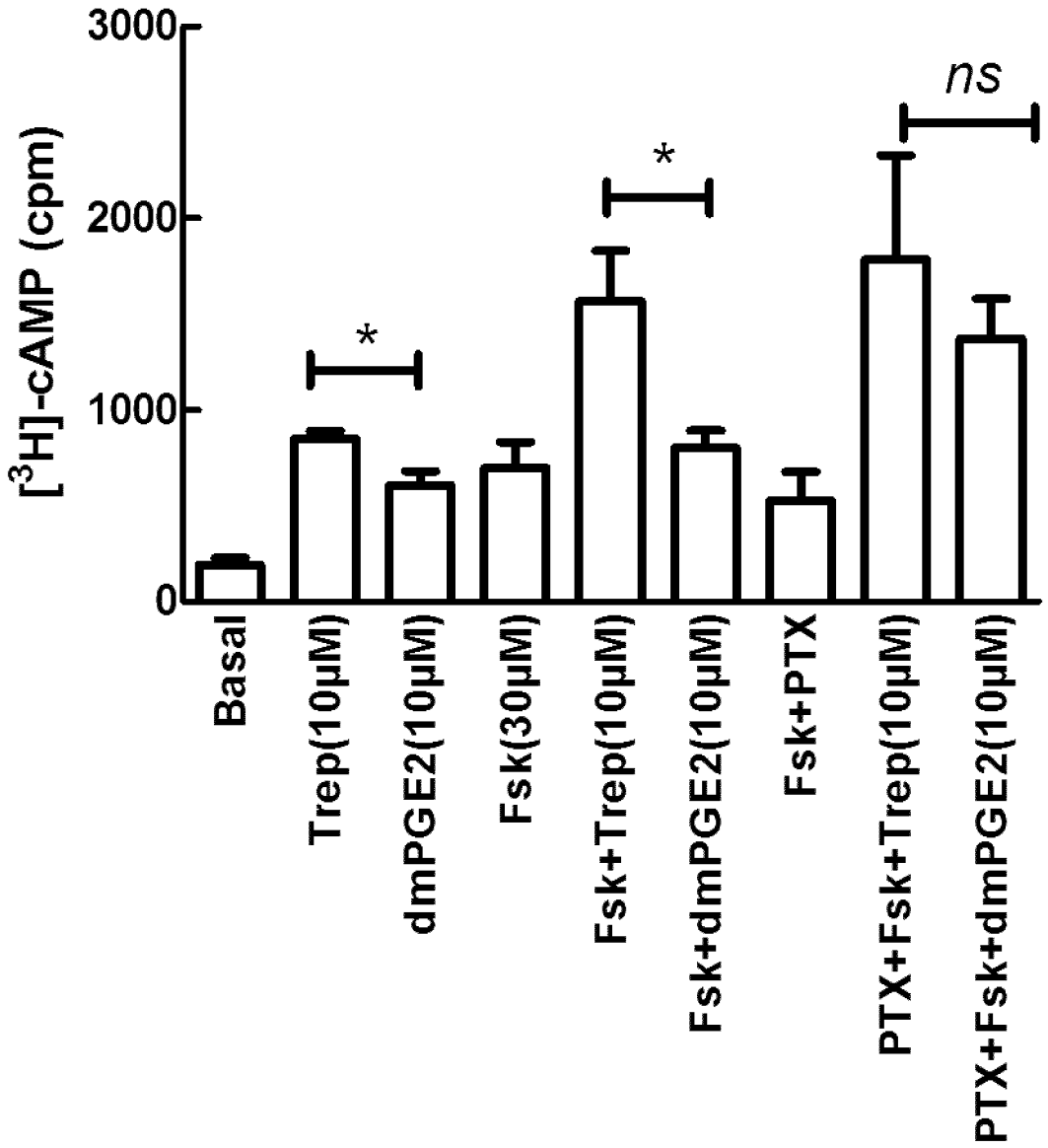

3000
2000
1000
0
[3H]-cAMP (cpm)
*
*
ns
Basal
Trep(10µM)
dmPGE2(10µM)
Fsk(30µM)
Fsk+Trep(10µM)
Fsk+dmPGE2(10µM)
Fsk+PTX
PTX+Fsk+Trep(10µM)
PTX+Fsk+dmPGE2(10µM)

Figure 8

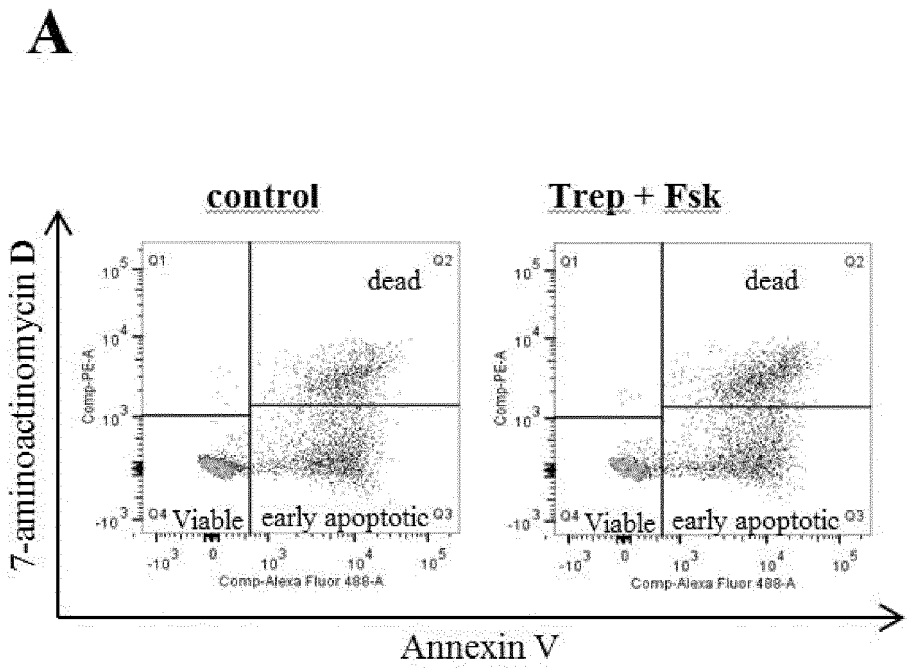

A
control
Trep + Fsk
7-aminoactinomycin D
Annexin V
dead
Viable
early apoptotic
Q1
Q2
Q3
Q4
Comp-PE-A
Comp-Alexa Fluor 488-A

Figure 8 continued

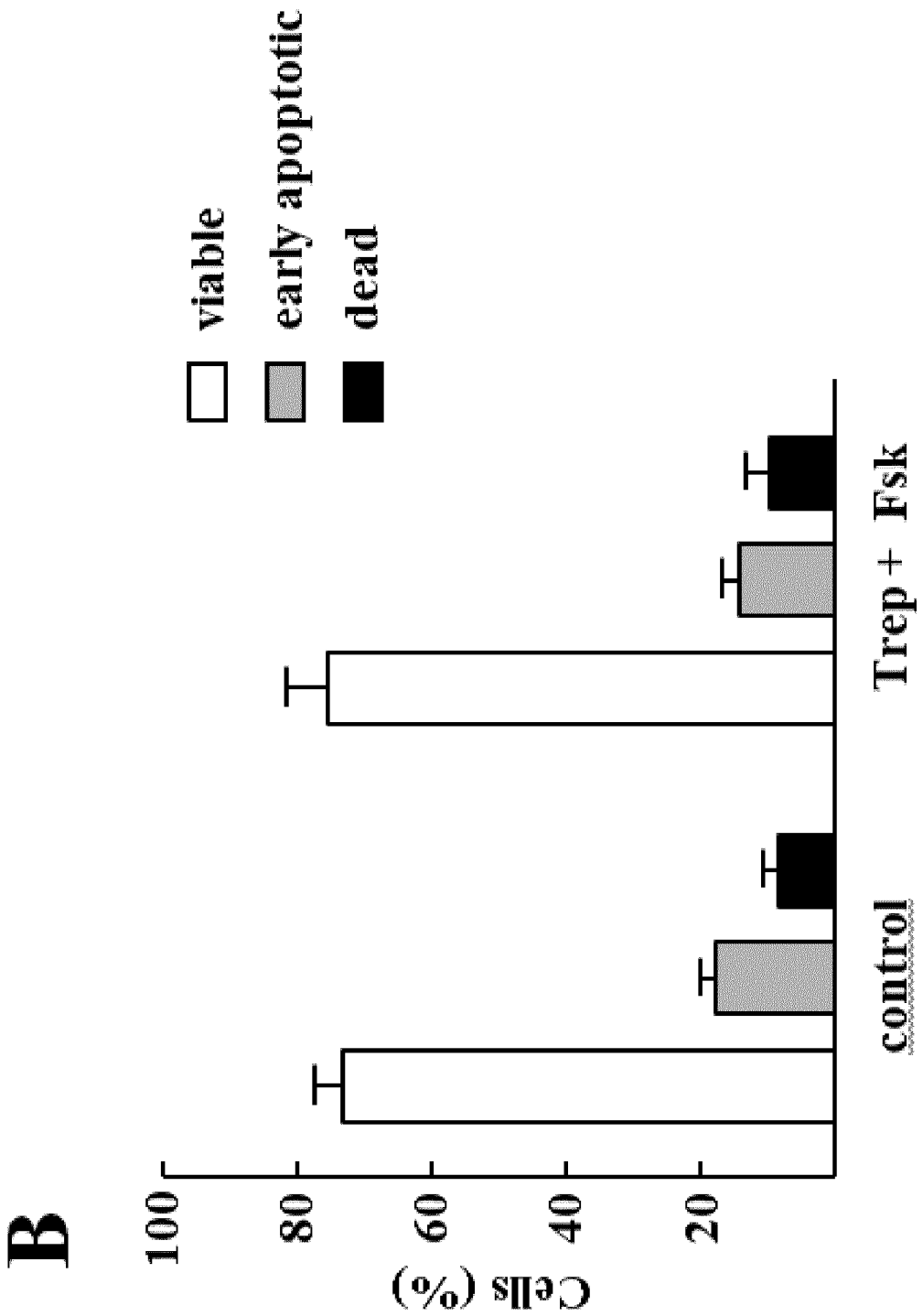


Figure 8 continued

C

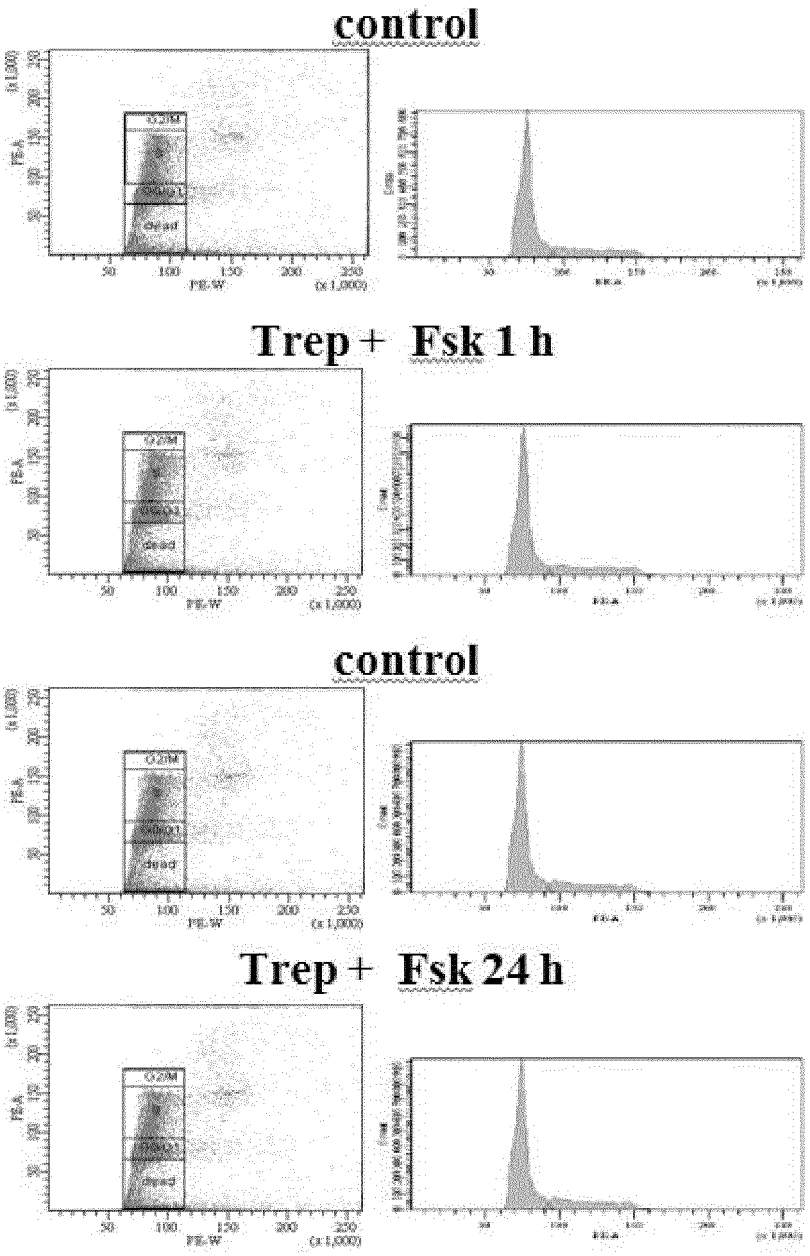
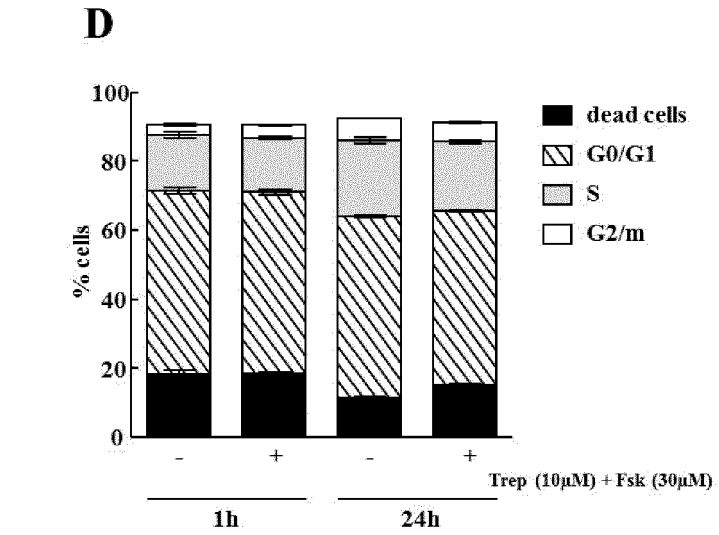
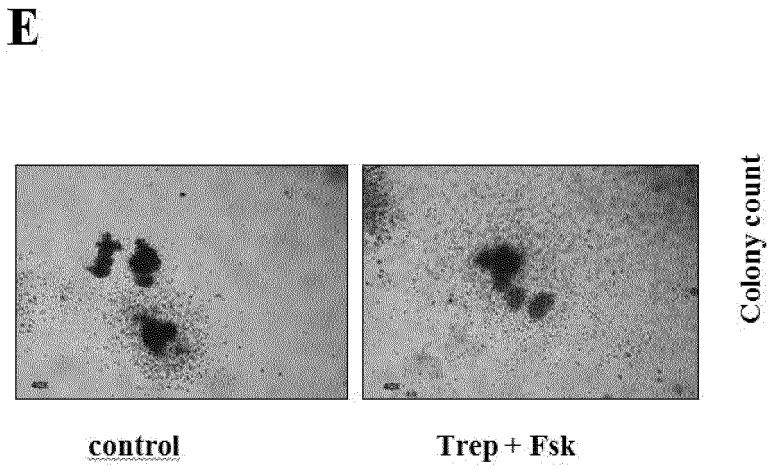


Figure 8 continued





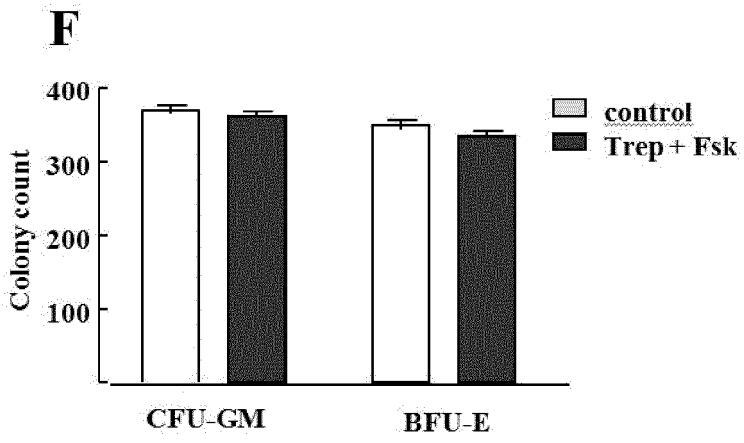


Figure 9

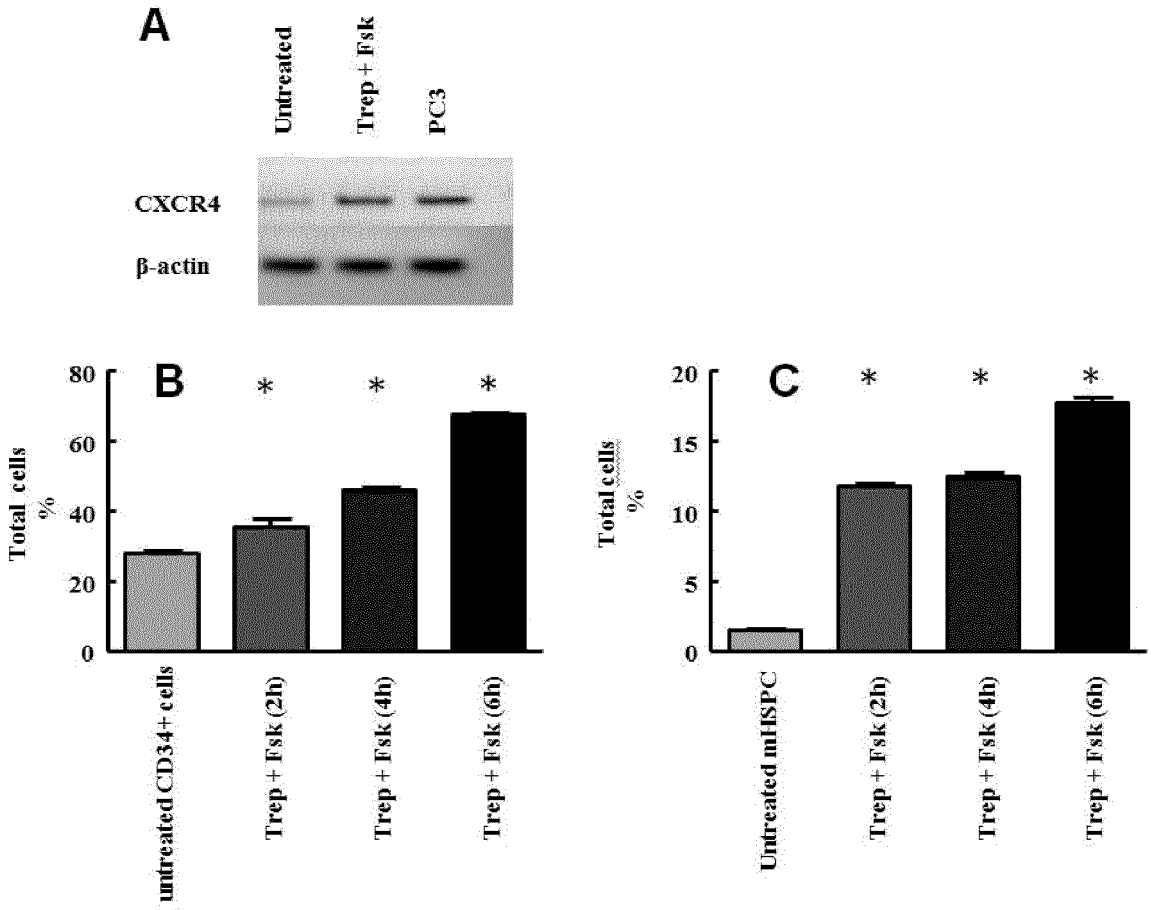


Figure 10

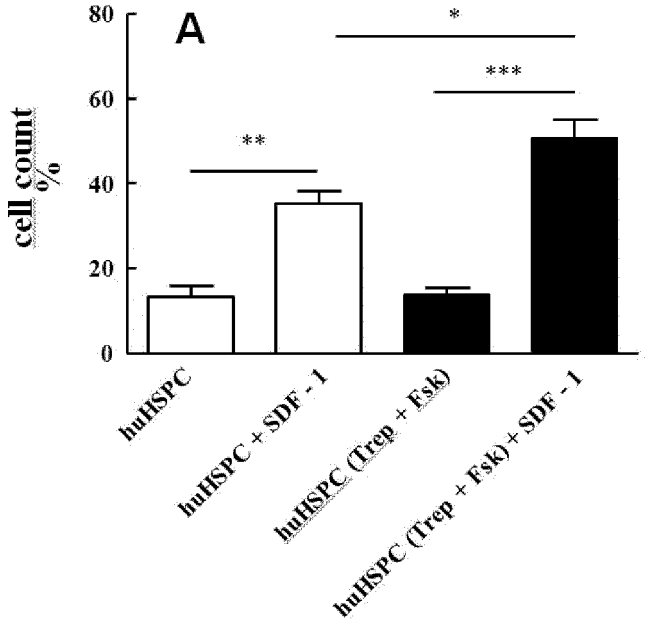
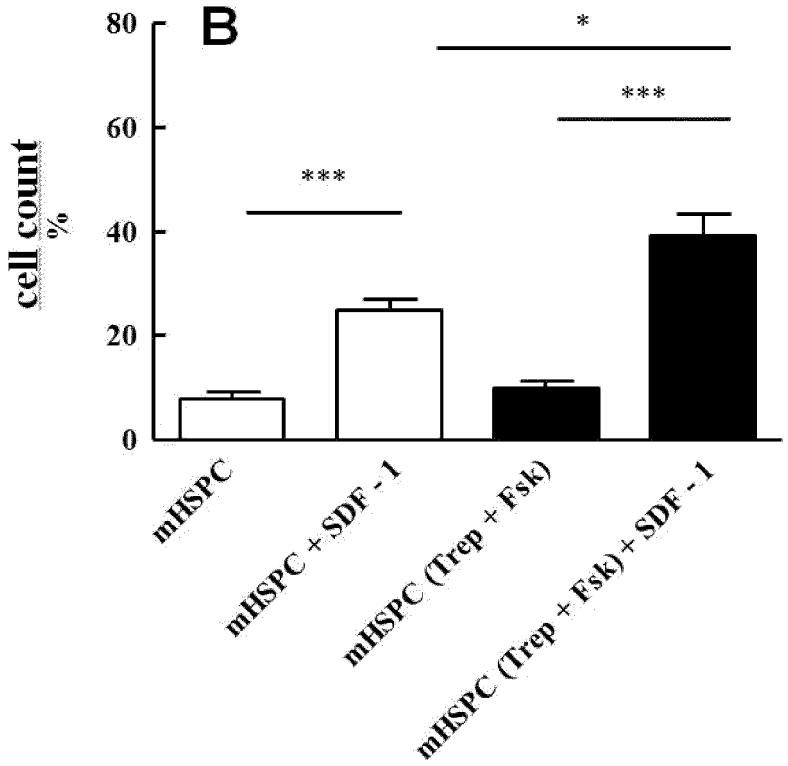


Figure 10 continued



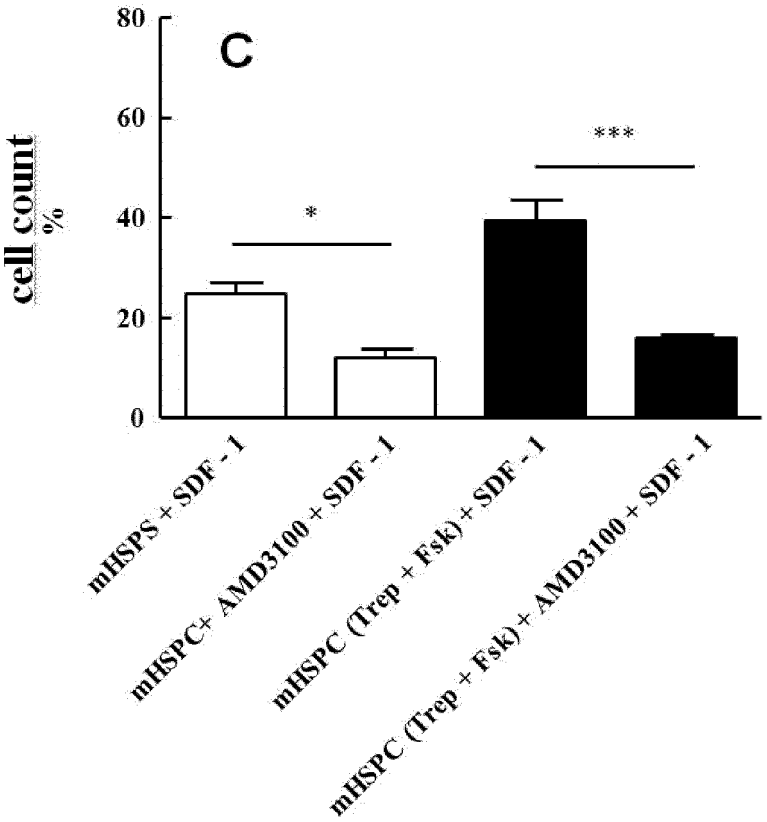


Figure 11

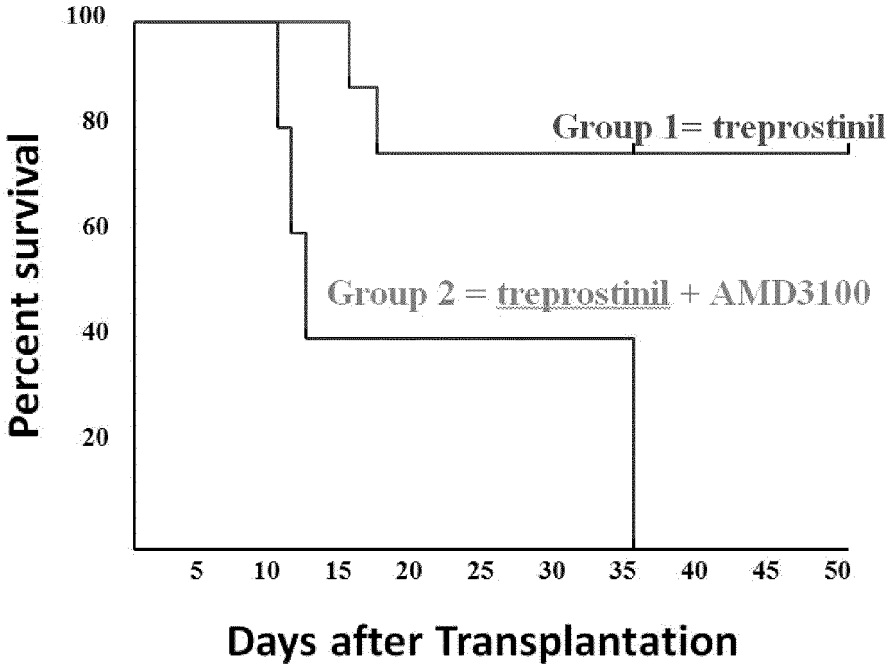


Figure 12

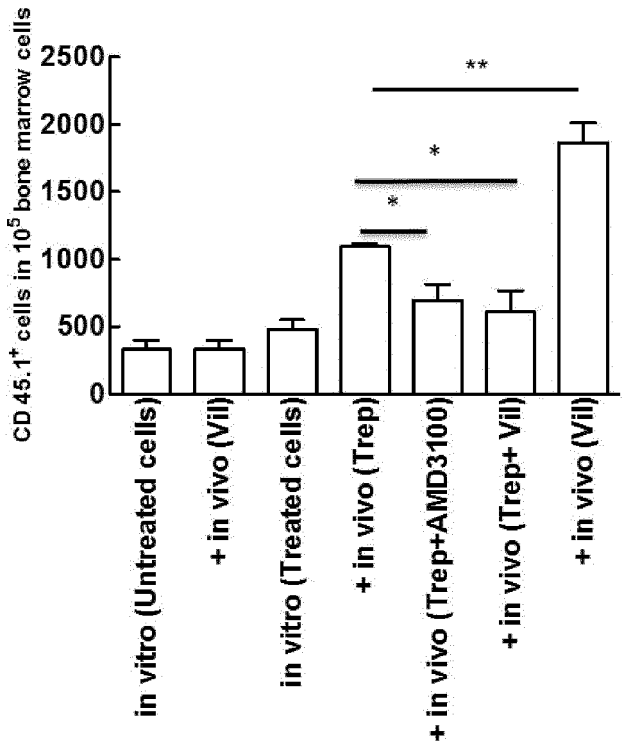
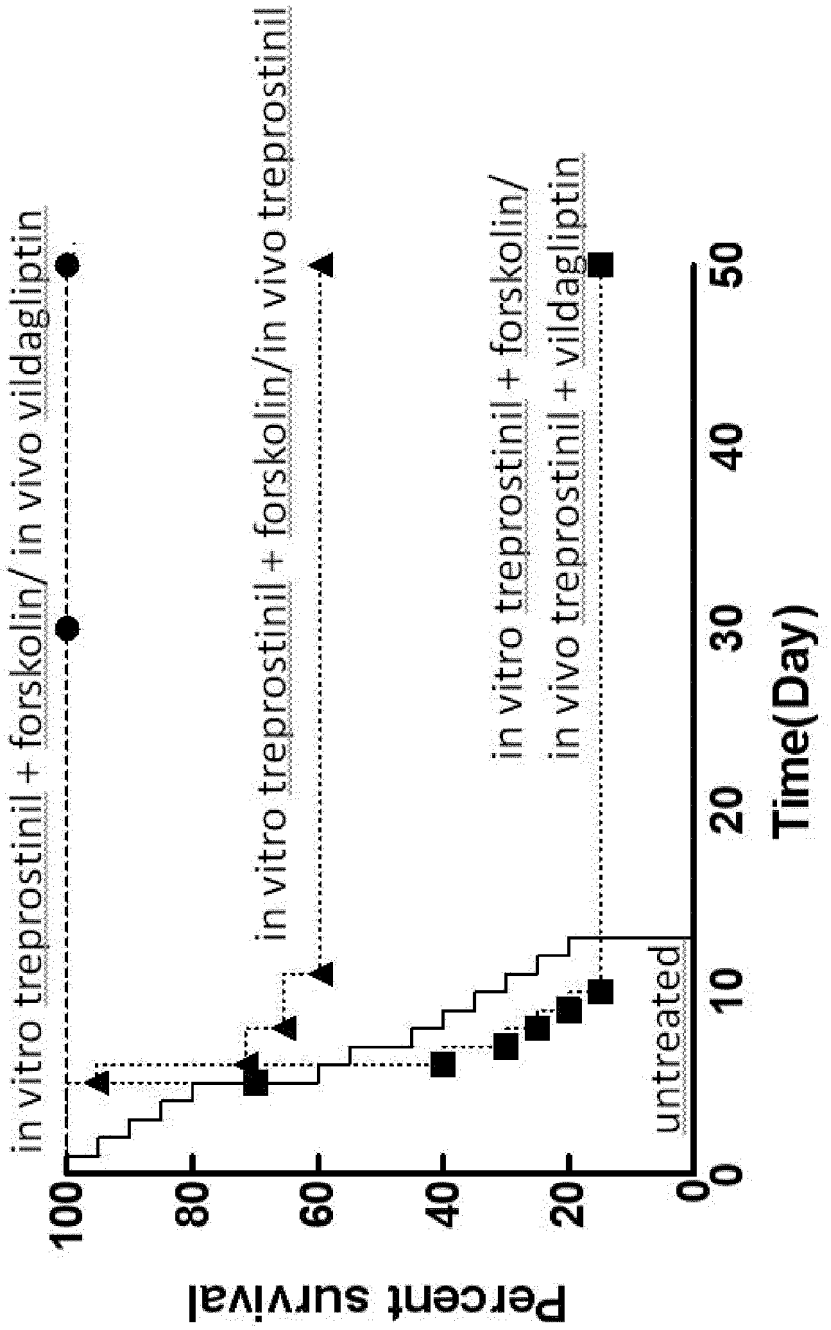


Figure 13


in vitro treprostinil + forskolin/ in vivo vildagliptin
in vitro treprostinil + forskolin/in vivo treprostinil
in vitro treprostinil + forskolin/
in vivo treprostinil + vildagliptin
untreated
Percent survival
Time(Day)
0
20
40
60
80
100
0
10
20
30
40
50