Fig. 1

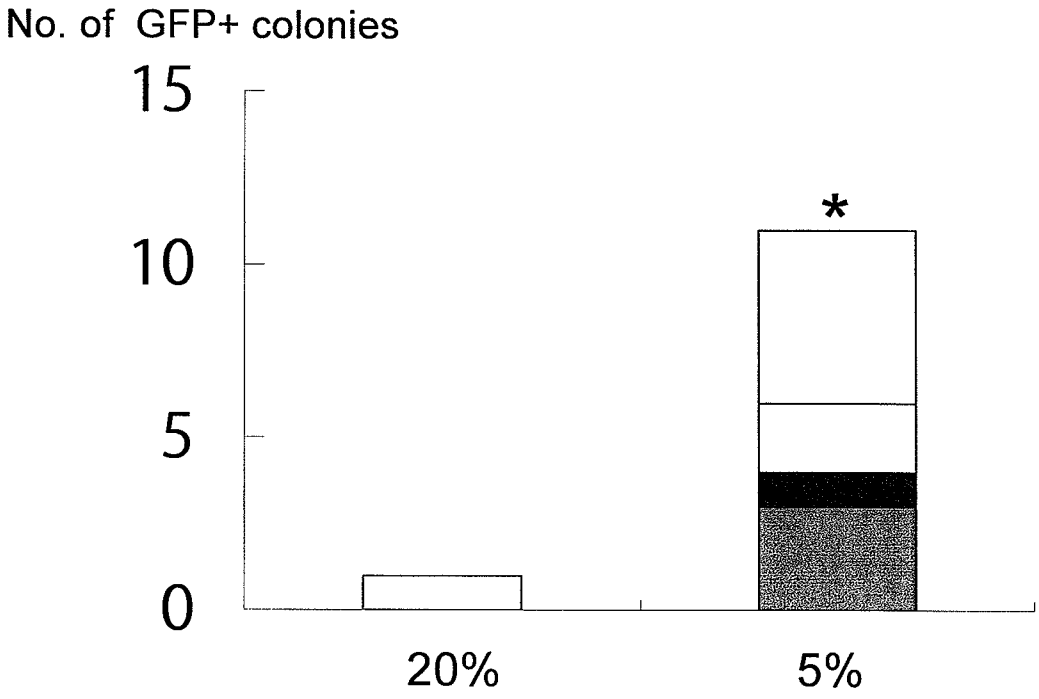


Fig. 2

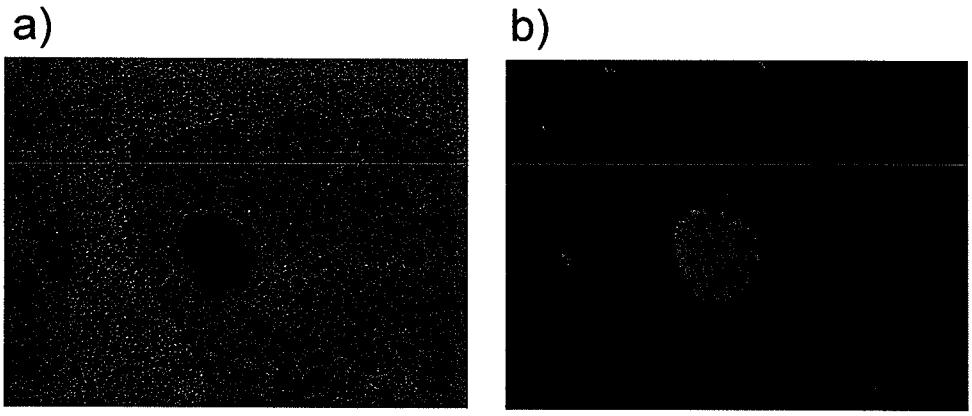


Fig. 3

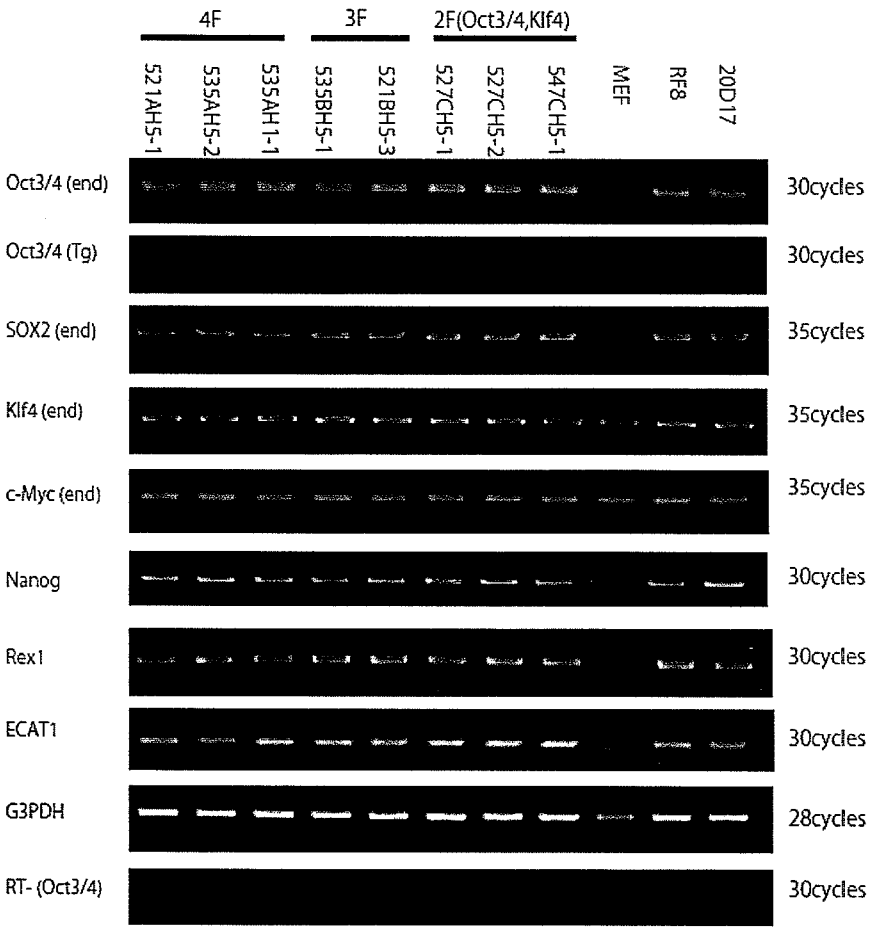
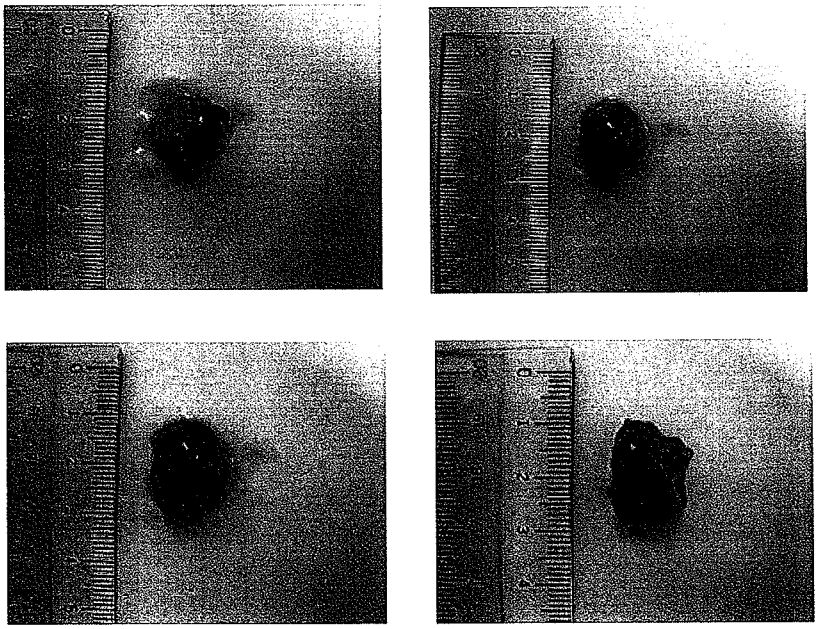

4F
3F
2F(Oct3/4,Klf4)
521AH5-1
535AH5-2
535AH1-1
535BH5-1
521BH5-3
527CH5-1
527CH5-2
547CH5-1
MEF
RF8
20D17
Oct3/4 (end)
Oct3/4 (Tg)
SOX2 (end)
Klf4 (end)
c-Myc (end)
Nanog
Rex1
ECAT1
G3PDH
RT- (Oct3/4)
30cycles
30cycles
35cycles
35cycles
35cycles
30cycles
30cycles
30cycles
28cycles
30cycles

Fig. 4



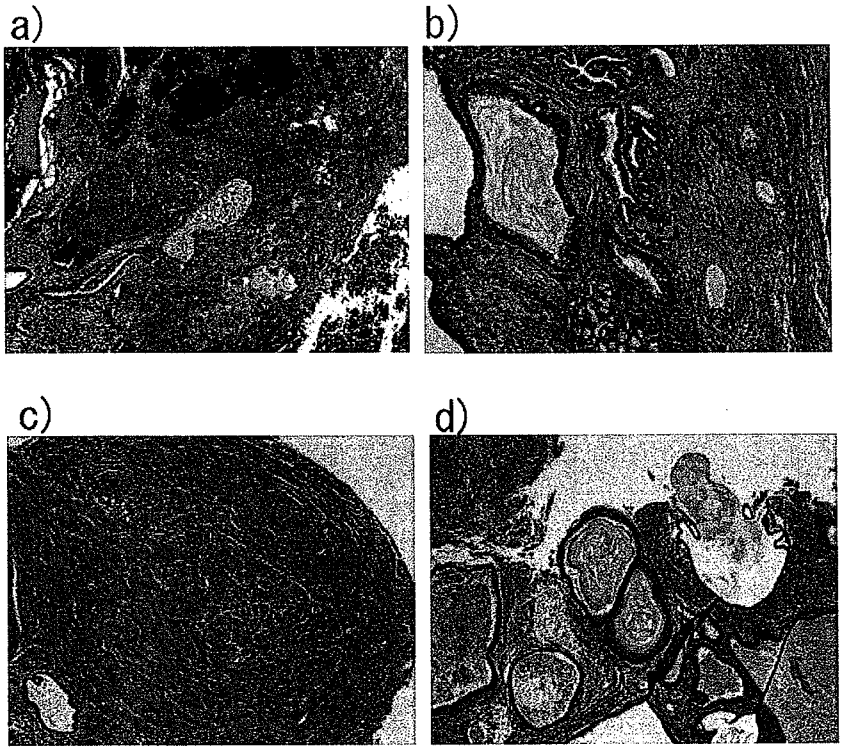


Fig. 5

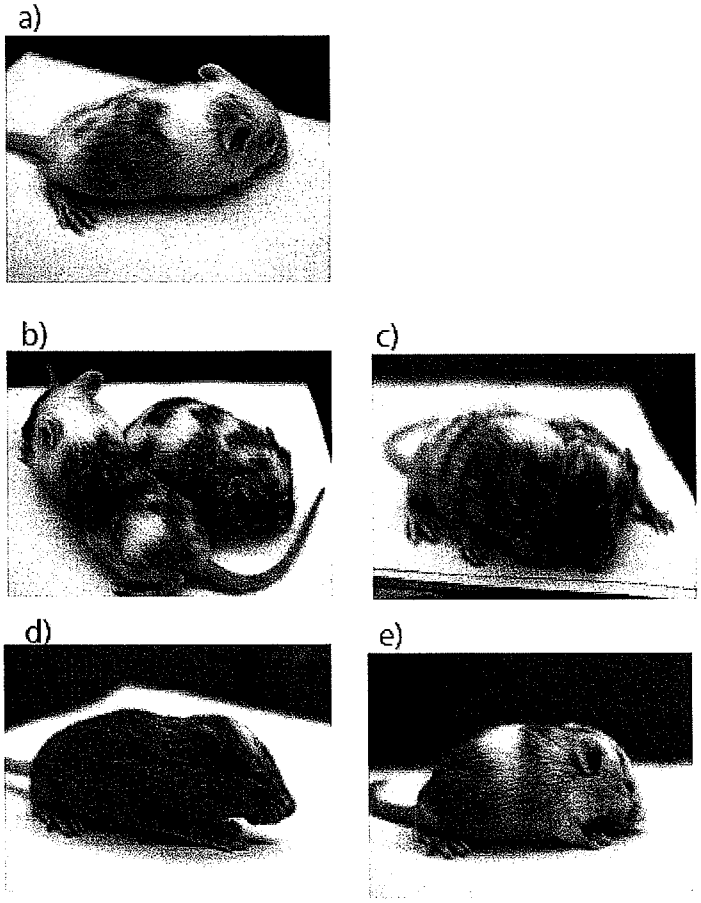


Fig. 6

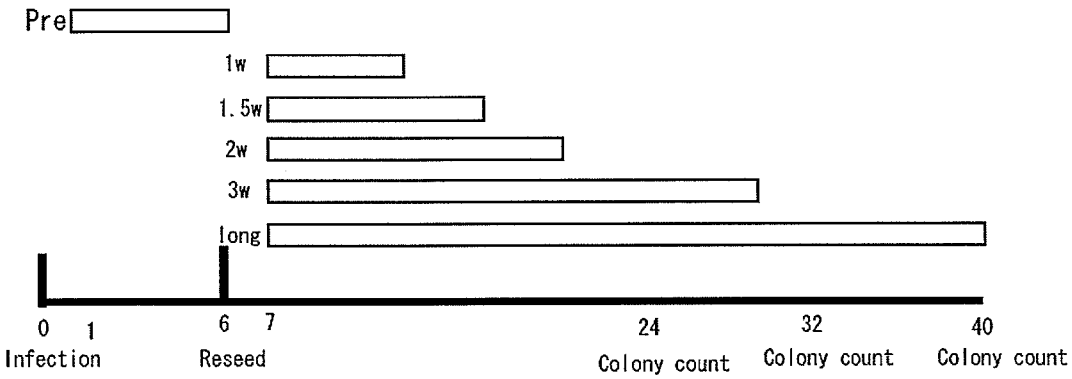

Pre
1w
1.5w
2w
3w
long
0
1
Infection
6
7
Reseed
24
Colony count
32
Colony count
40
Colony count

Fig. 7

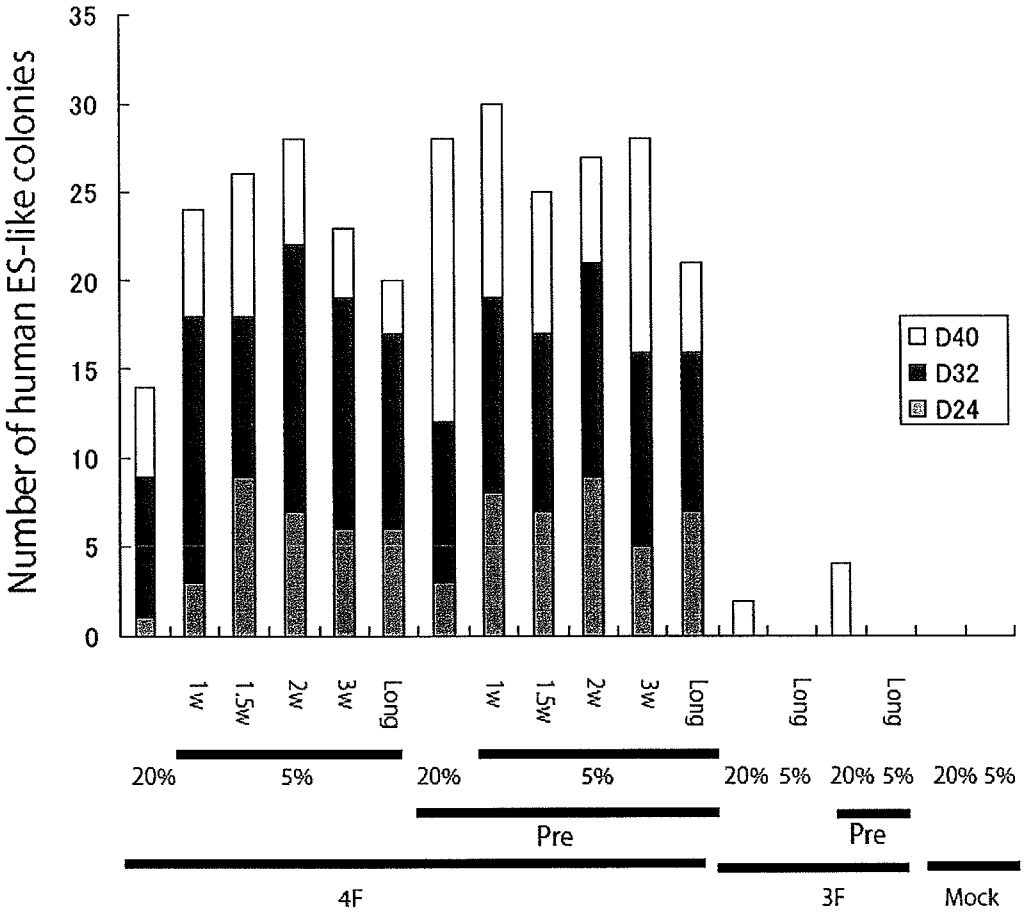

Number of human ES-like colonies
35
30
25
20
15
10
5
0
D40
D32
D24
1w
1.5w
2w
3w
Long
1w
1.5w
2w
3w
Long
Long
Long
20%
5%
20%
5%
20% 5%
20% 5%
20% 5%
Pre
Pre
4F
3F
Mock

Fig. 8

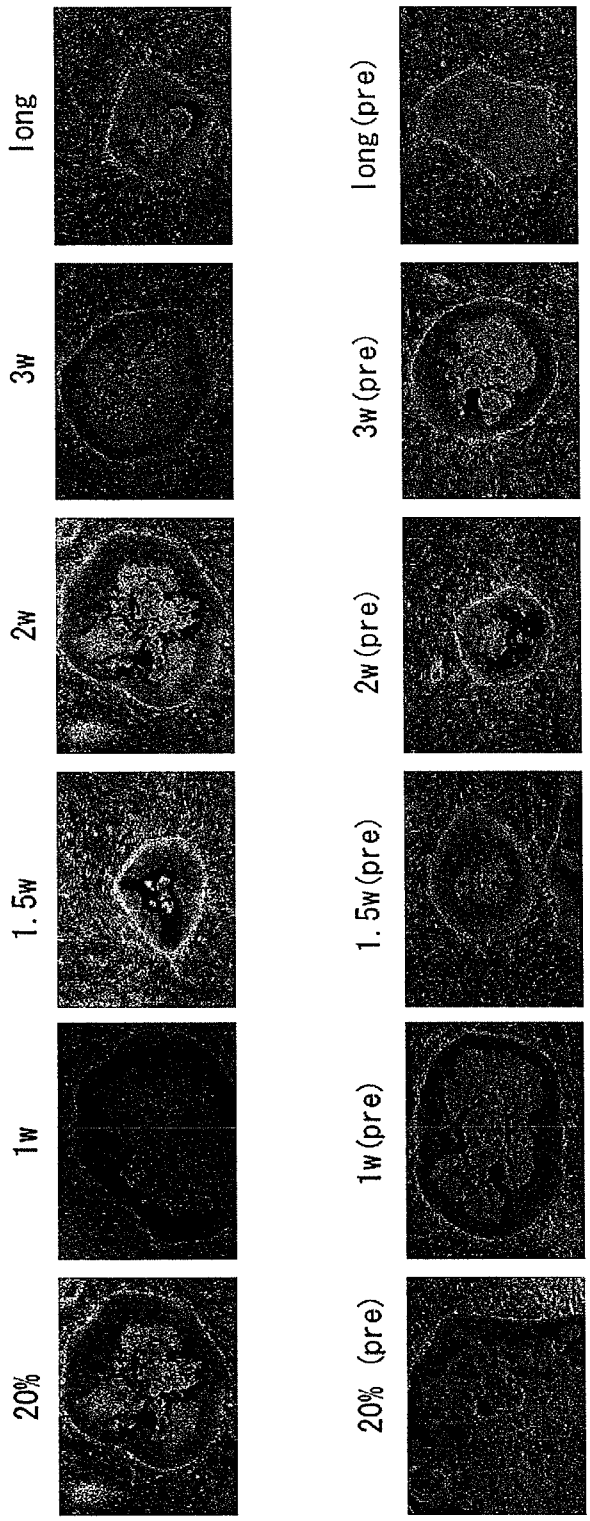


Fig. 9

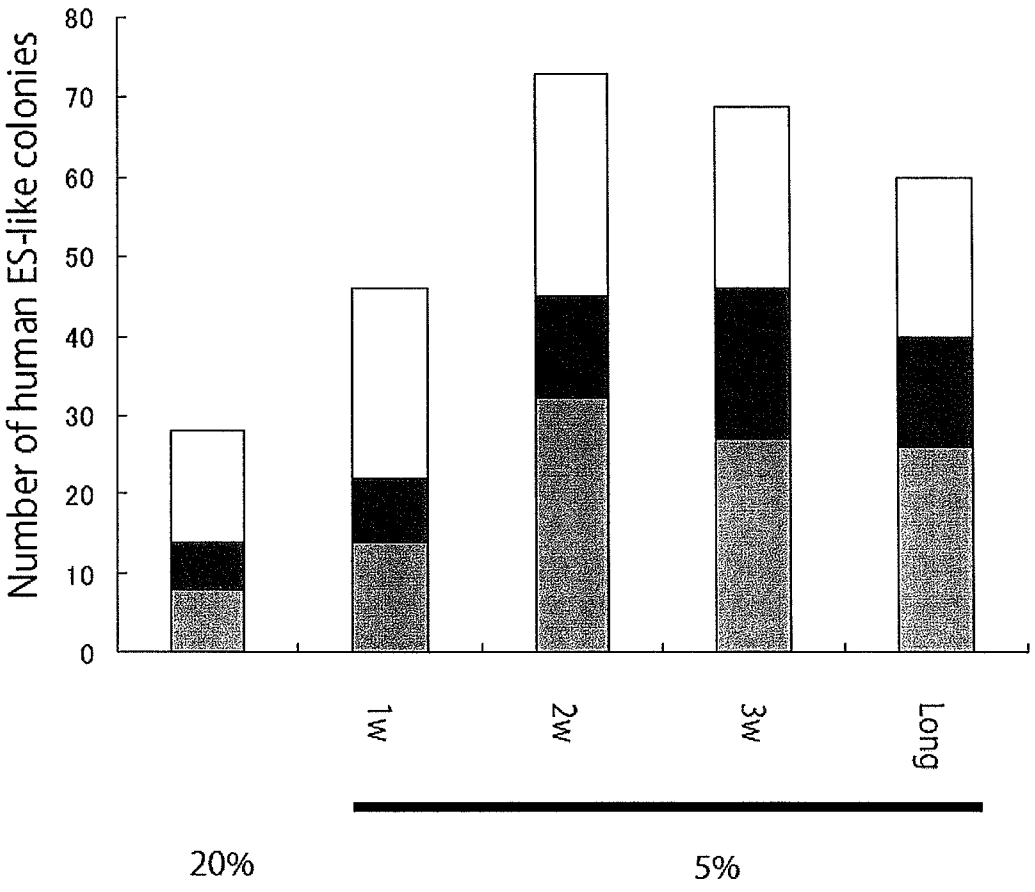

Number of human ES-like colonies
80
70
60
50
40
30
20
10
0
1w
2w
3w
Long
20%
5%

Fig. 10

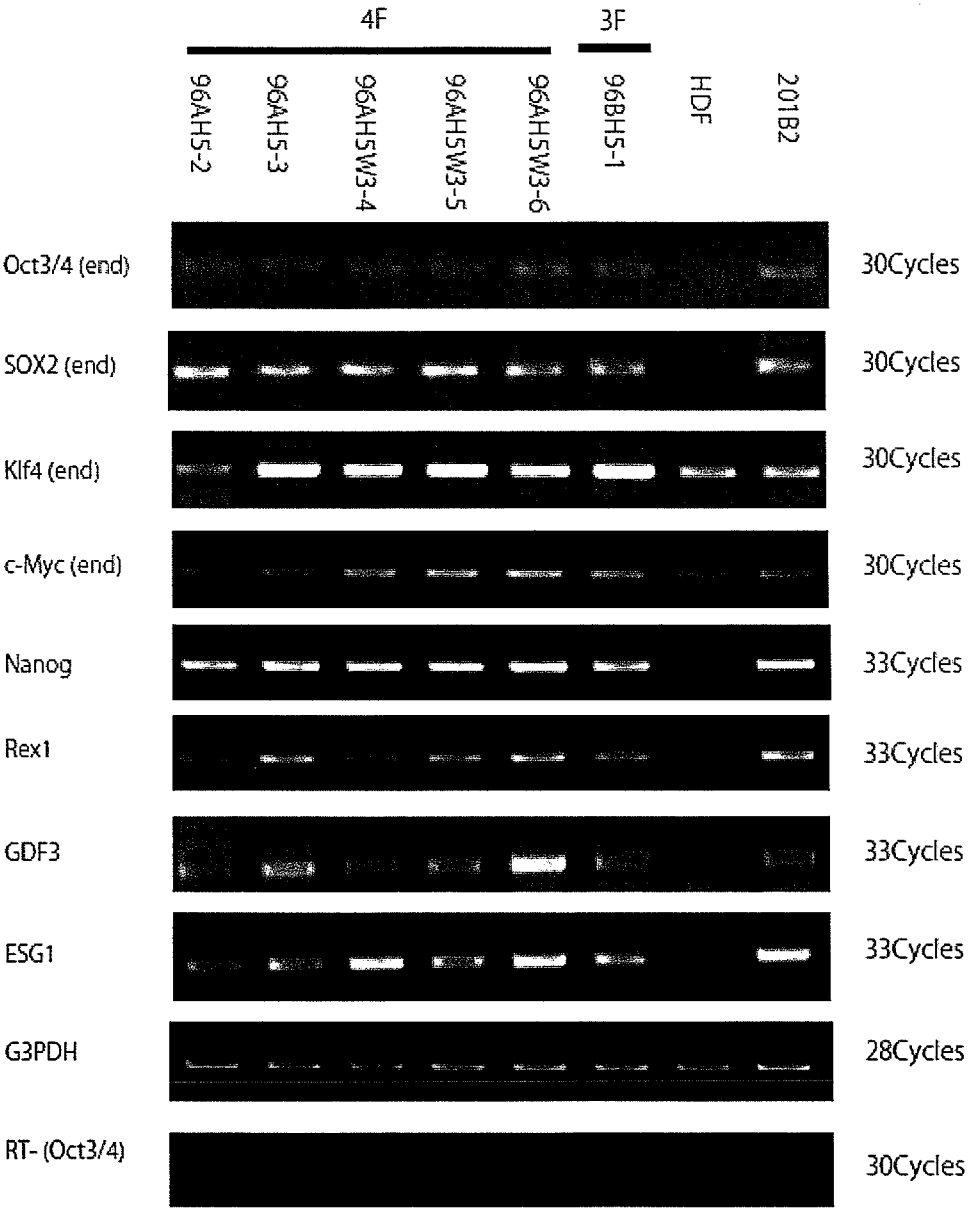

4F
3F
96AH5-2
96AH5-3
96AH5W3-4
96AH5W3-5
96AH5W3-6
96BH5-1
HDF
201B2
Oct3/4 (end)
SOX2 (end)
Klf4 (end)
c-Myc (end)
Nanog
Rex1
GDF3
ESG1
G3PDH
RT- (Oct3/4)
30Cycles
30Cycles
30Cycles
30Cycles
33Cycles
33Cycles
33Cycles
33Cycles
28Cycles
30Cycles

Fig. 11

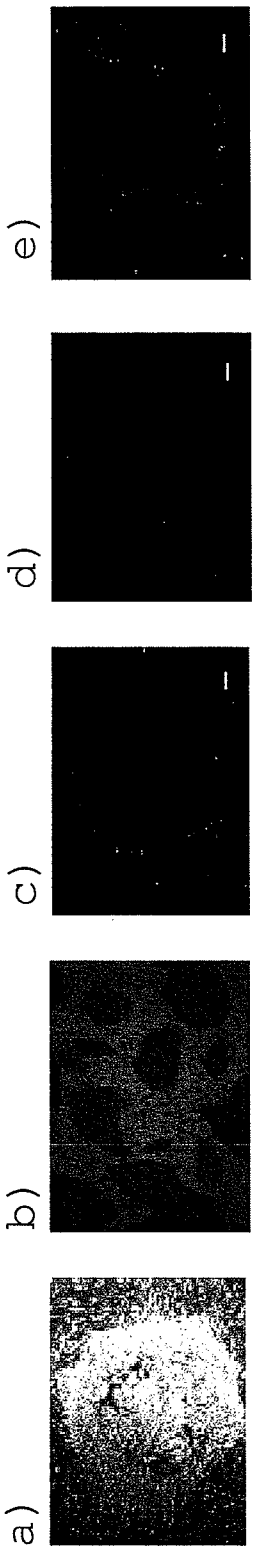


Fig. 12

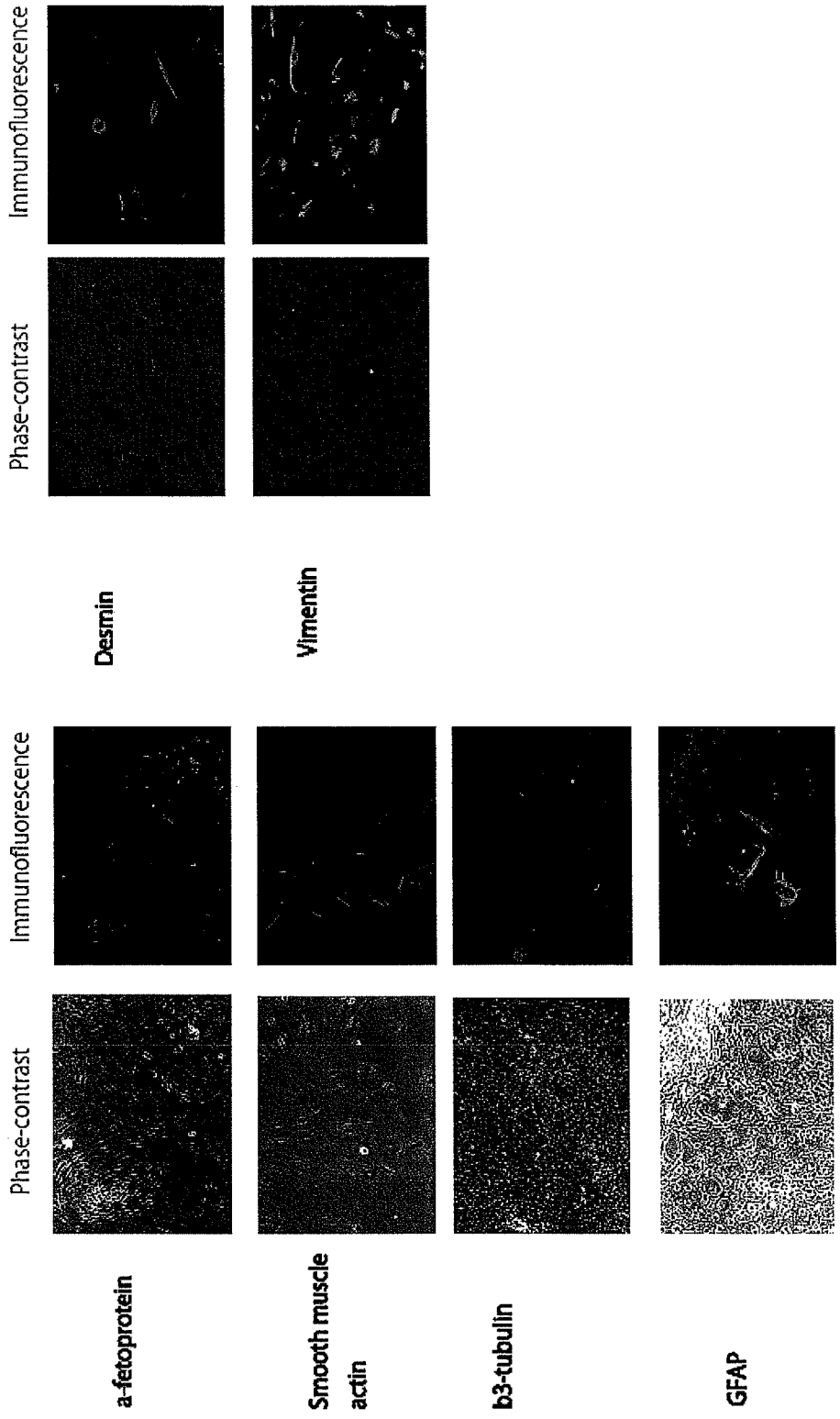

Phase-contrast
Immunofluorescence
Desmin
Vimentin
Phase-contrast
Immunofluorescence
a-fetoprotein
Smooth muscle actin
b3-tubulin
GFAP

Fig. 13

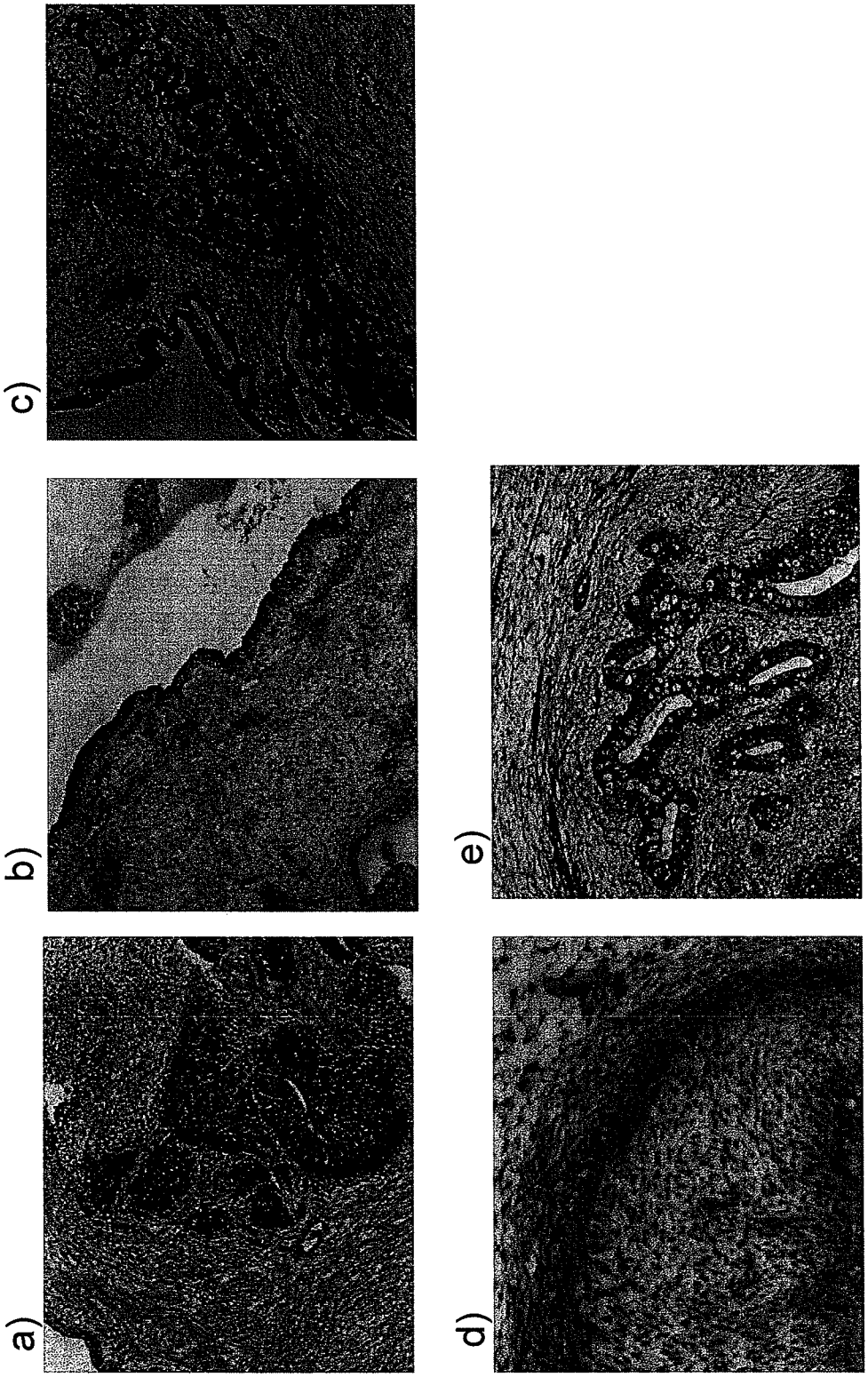


Fig. 14

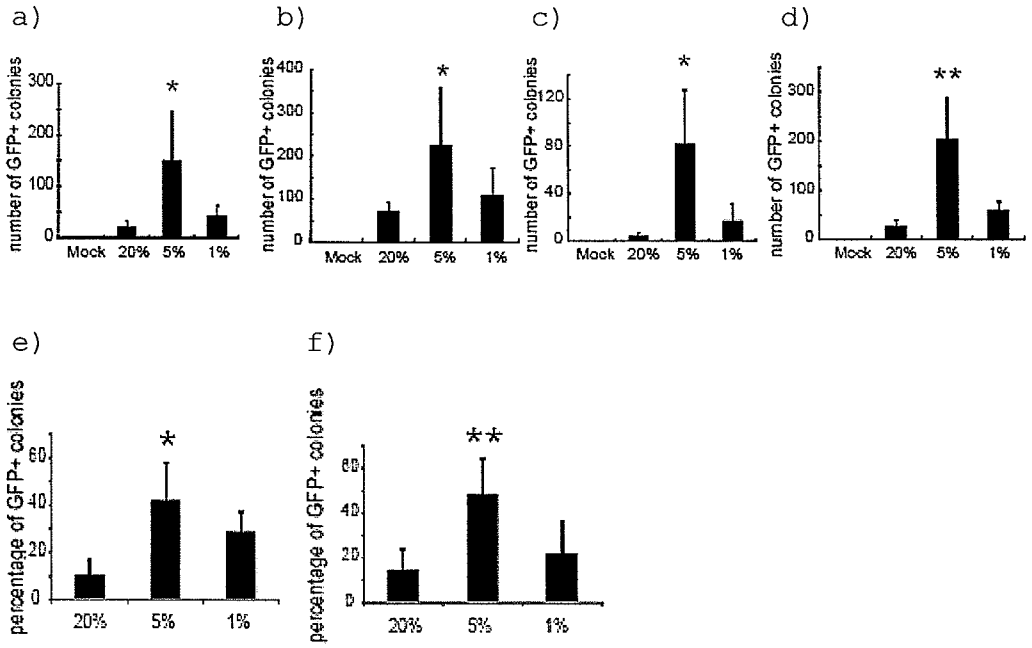

a)
b)
c)
d)
number of GFP+ colonies
Mock
20%
5%
1%
e)
f)
percentage of GFP+ colonies
20%
5%
1%

Fig. 15

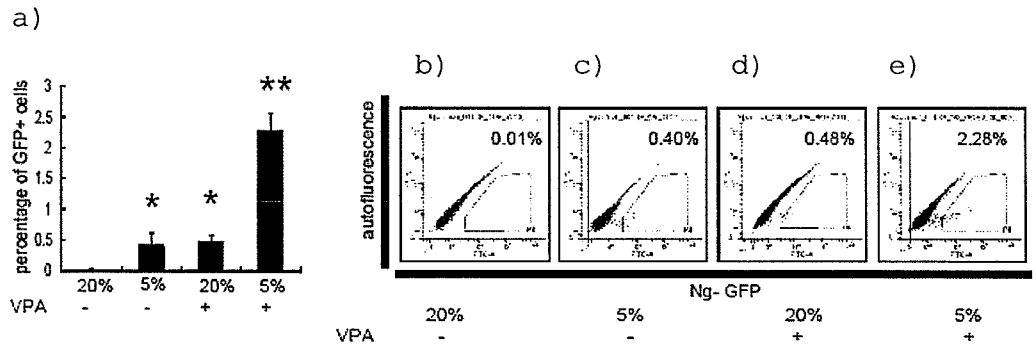

a)
percentage of GFP+ cells
20%
5%
20%
5%
VPA
-
-
+
+
b)
c)
d)
e)
autofluorescence
0.01%
0.40%
0.48%
2.28%
Ng- GFP
20%
5%
20%
5%
VPA
-
-
+
+

Fig. 16

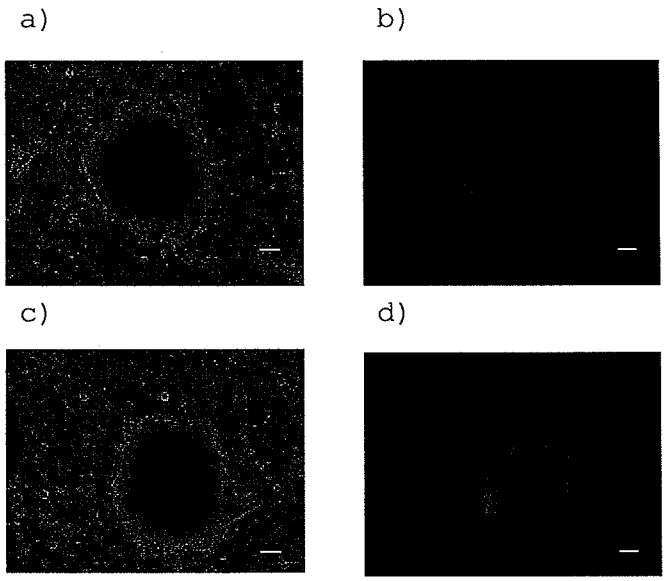


Fig. 17

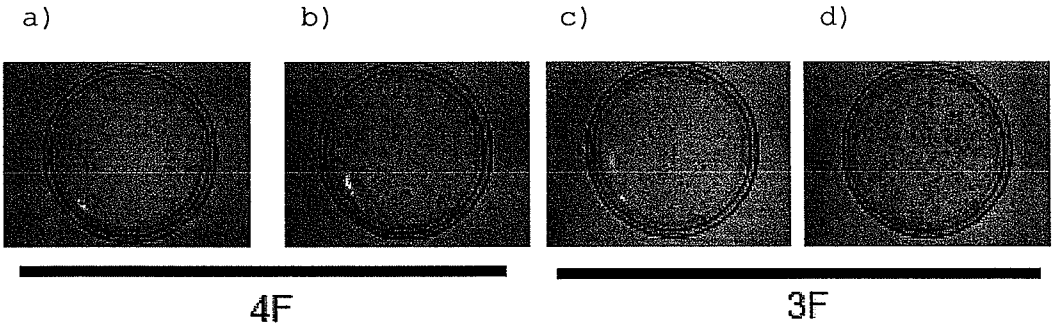


Fig. 18

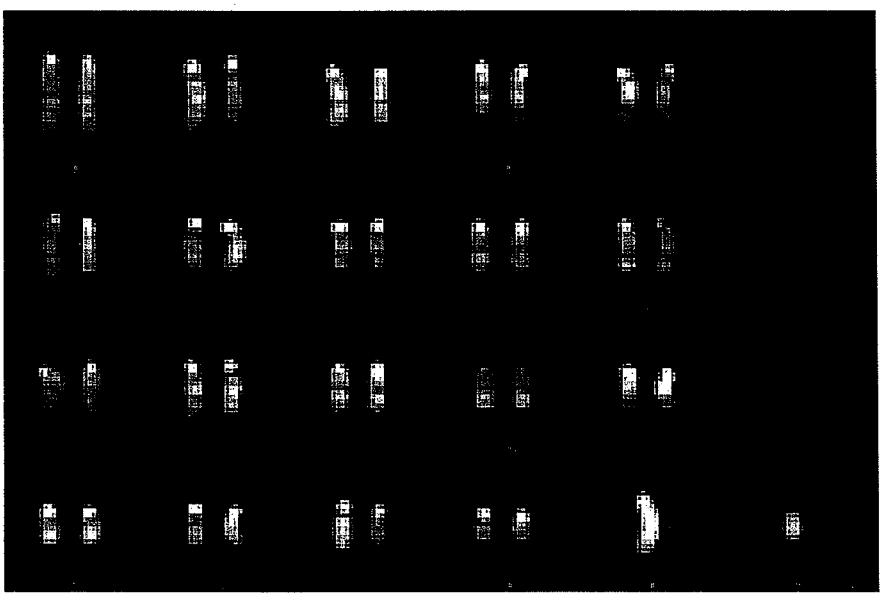


Fig. 19

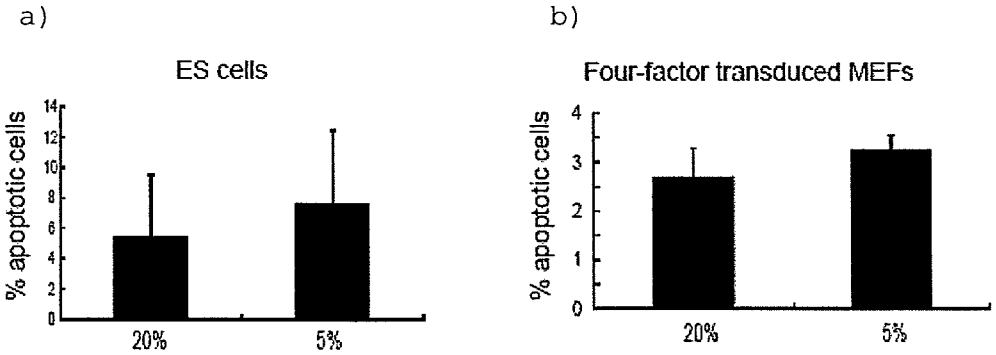

a)
ES cells
% apoptotic cells
14
12
10
8
6
4
2
0
20%
5%
b)
Four-factor transduced MEFs
% apoptotic cells
4
3
2
1
0
20%
5%

Fig. 20

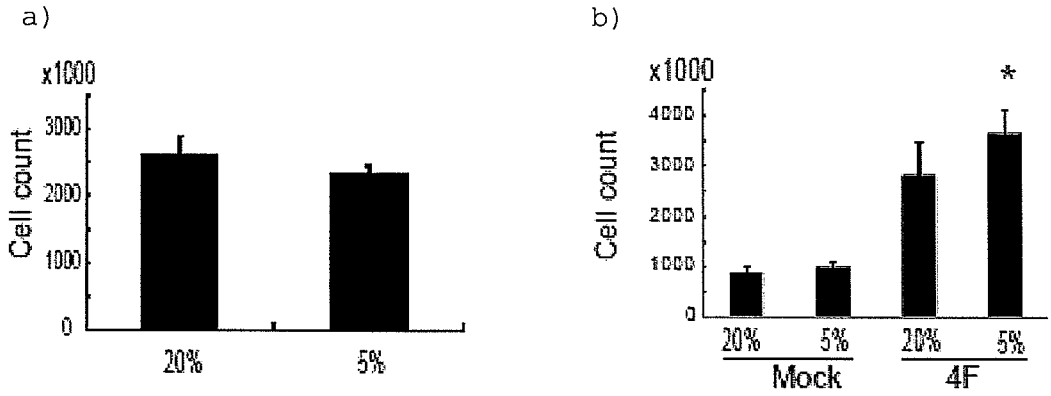

a)
x1000
3000
2000
1000
0
Cell count
20%
5%
b)
x1000
4000
3000
2000
1000
0
Cell count
*
20%
5%
20%
5%
Mock
4F

Fig. 21

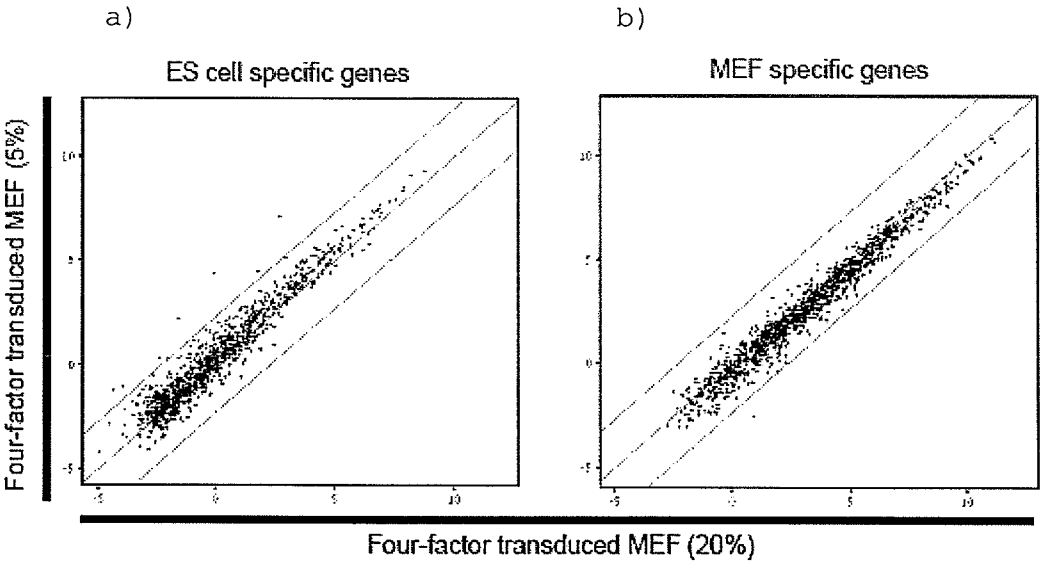

a)
ES cell specific genes
b)
MEF specific genes
Four-factor transduced MEF (5%)
Four-factor transduced MEF (20%)

Fig. 22

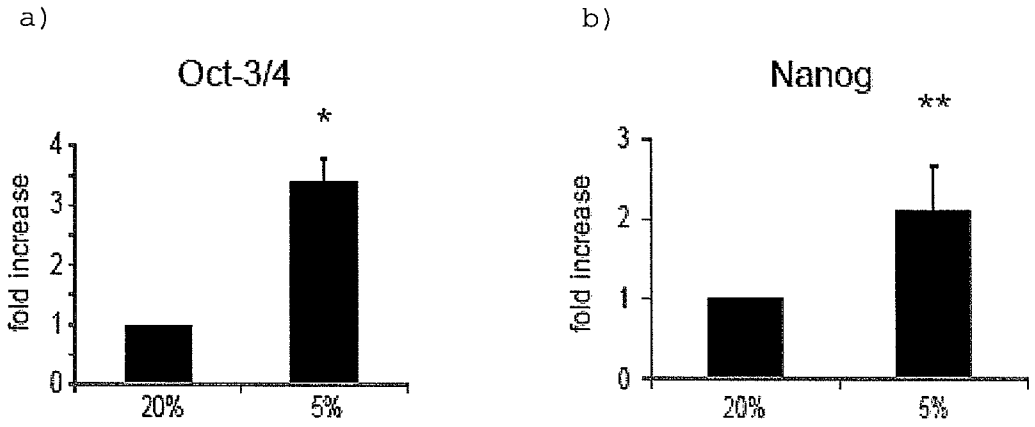

a)
Oct-3/4
*
fold increase
4
3
2
1
0
20%
5%
b)
Nanog
**
fold increase
3
2
1
0
20%
5%

Fig. 23

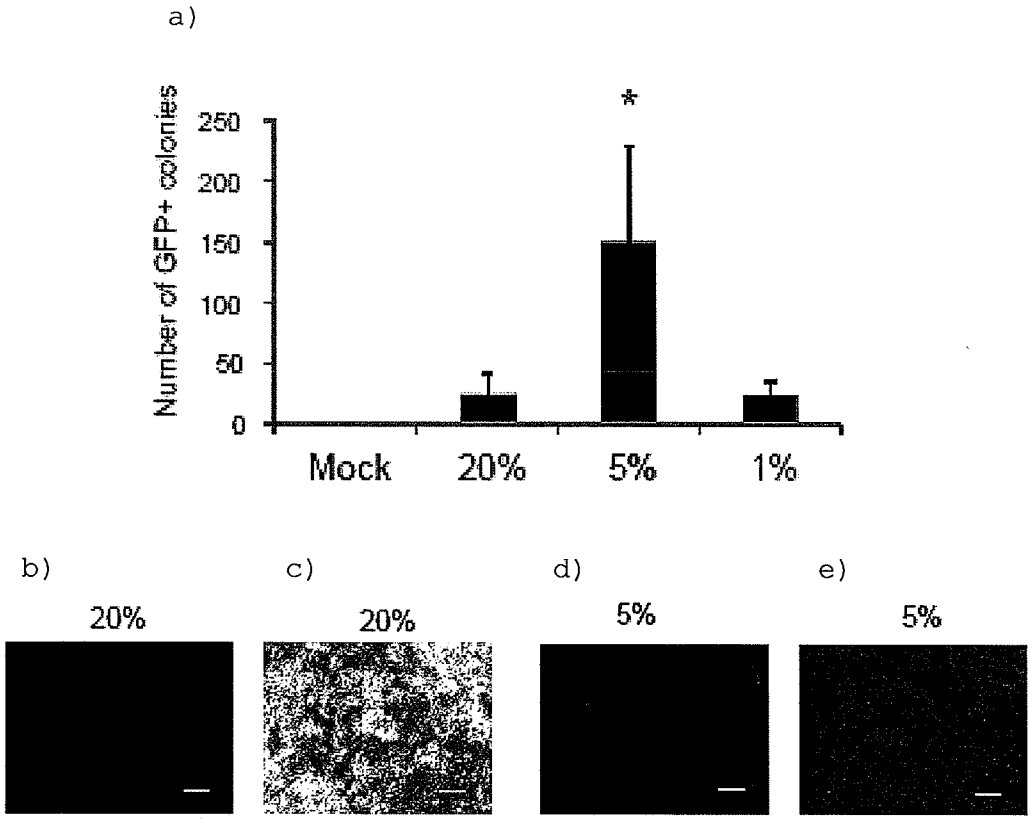
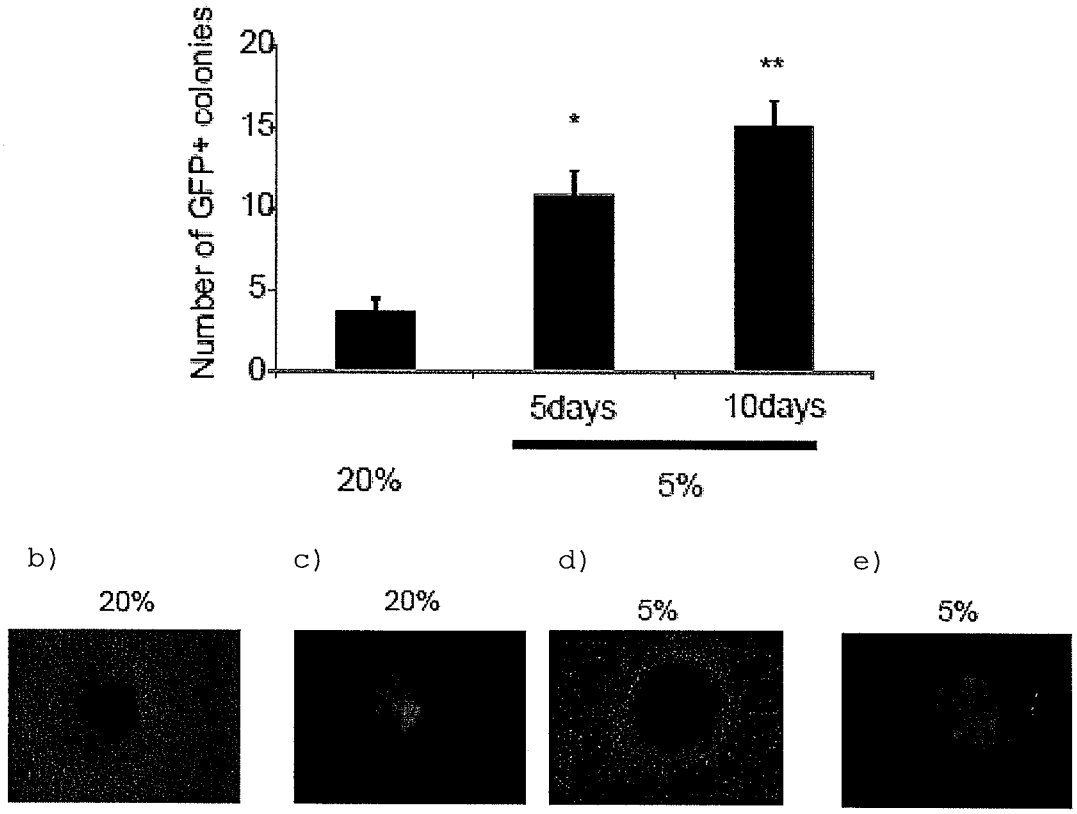

a)
Number of GFP+ colonies
*
250
200
150
100
50
0
Mock
20%
5%
1%
b)
20%
c)
20%
d)
5%
e)
5%

Fig. 24


Number of GFP+ colonies
20
15
10
5
0
*
**
5days
10days
20%
5%
b)
20%
c)
20%
d)
5%
e)
5%