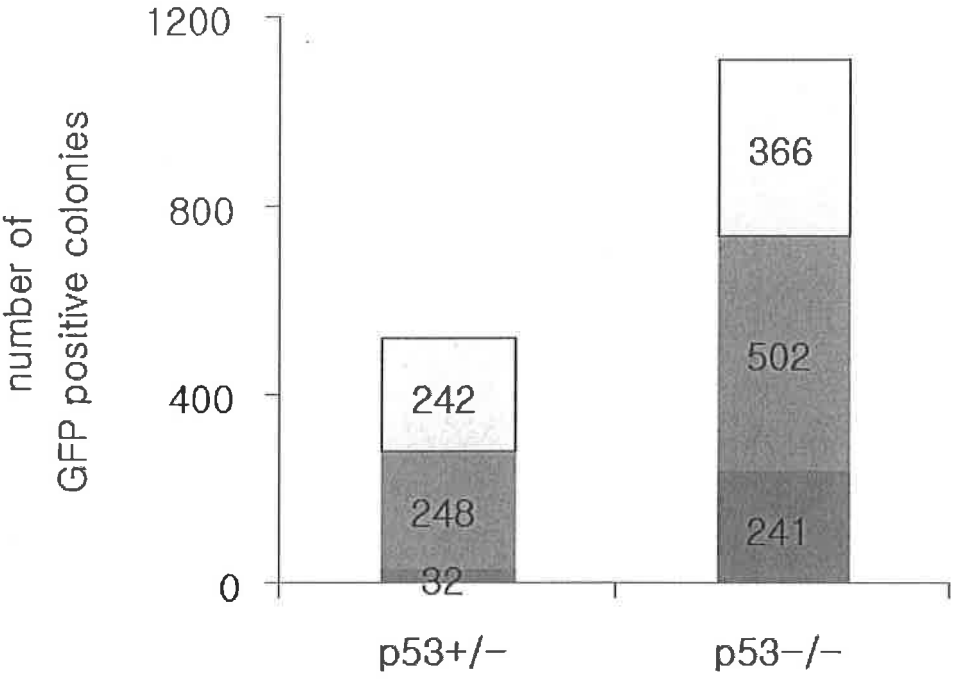
Fig. 1

(A)


1200
800
400
0
number of
GFP positive colonies
242
248
32
366
502
241
p53+/−
p53−/−

(B)

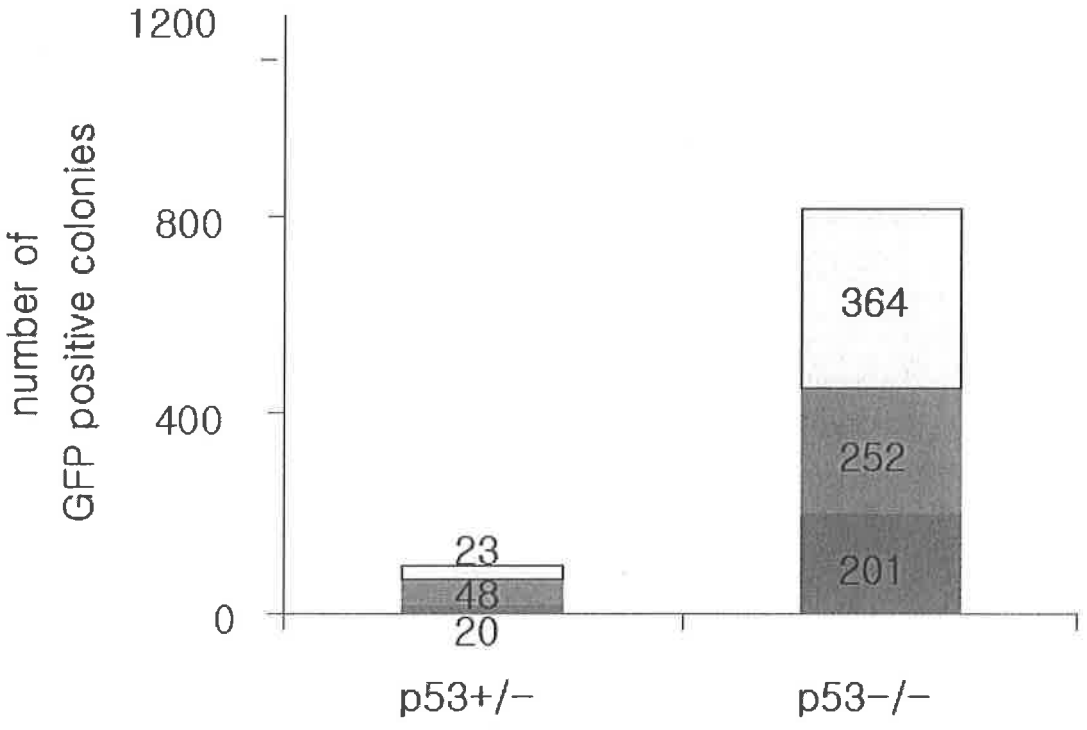

1200
800
400
0
number of
GFP positive colonies
23
48
20
364
252
201
p53+/−
p53−/−

Fig. 2

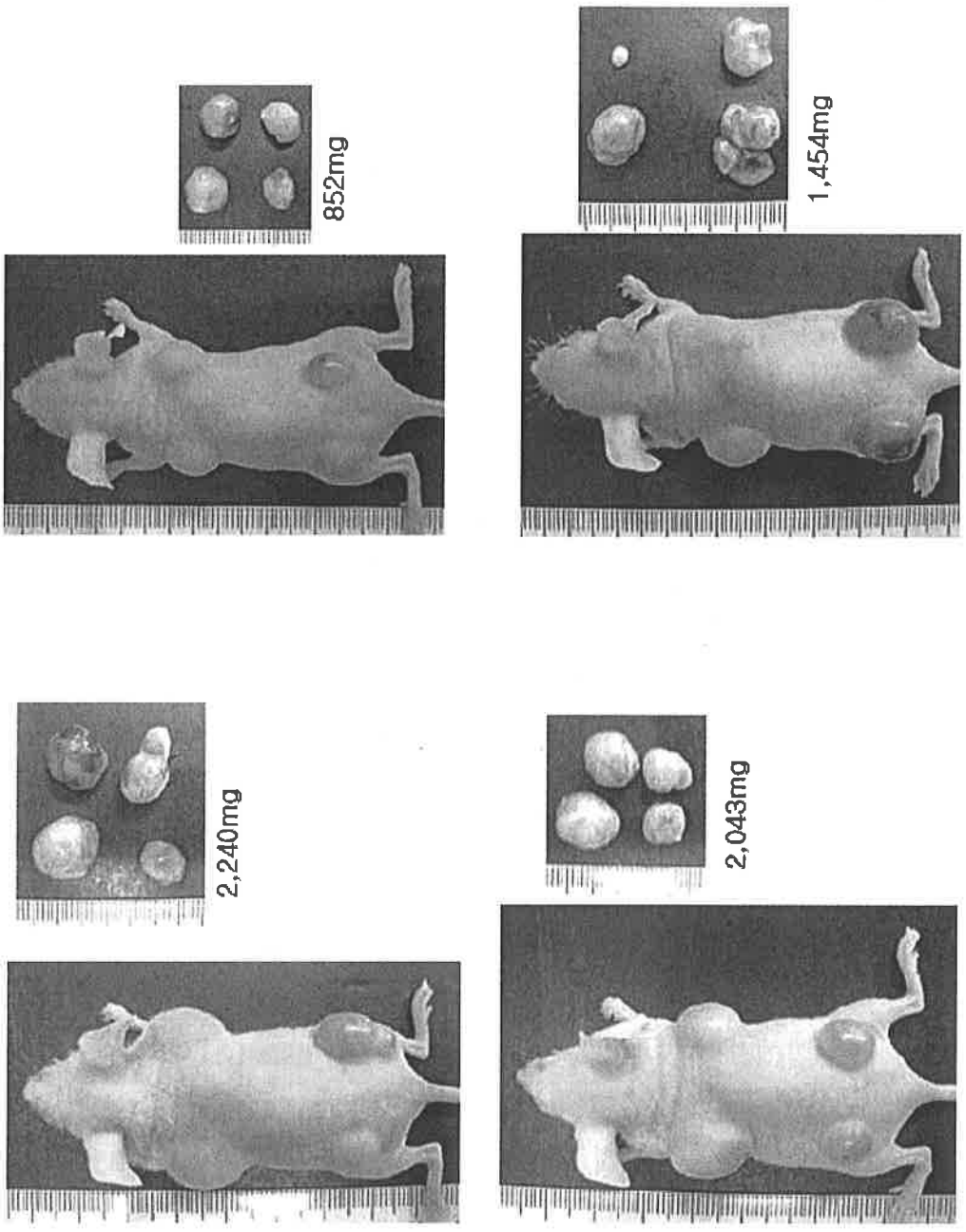


Fig. 3

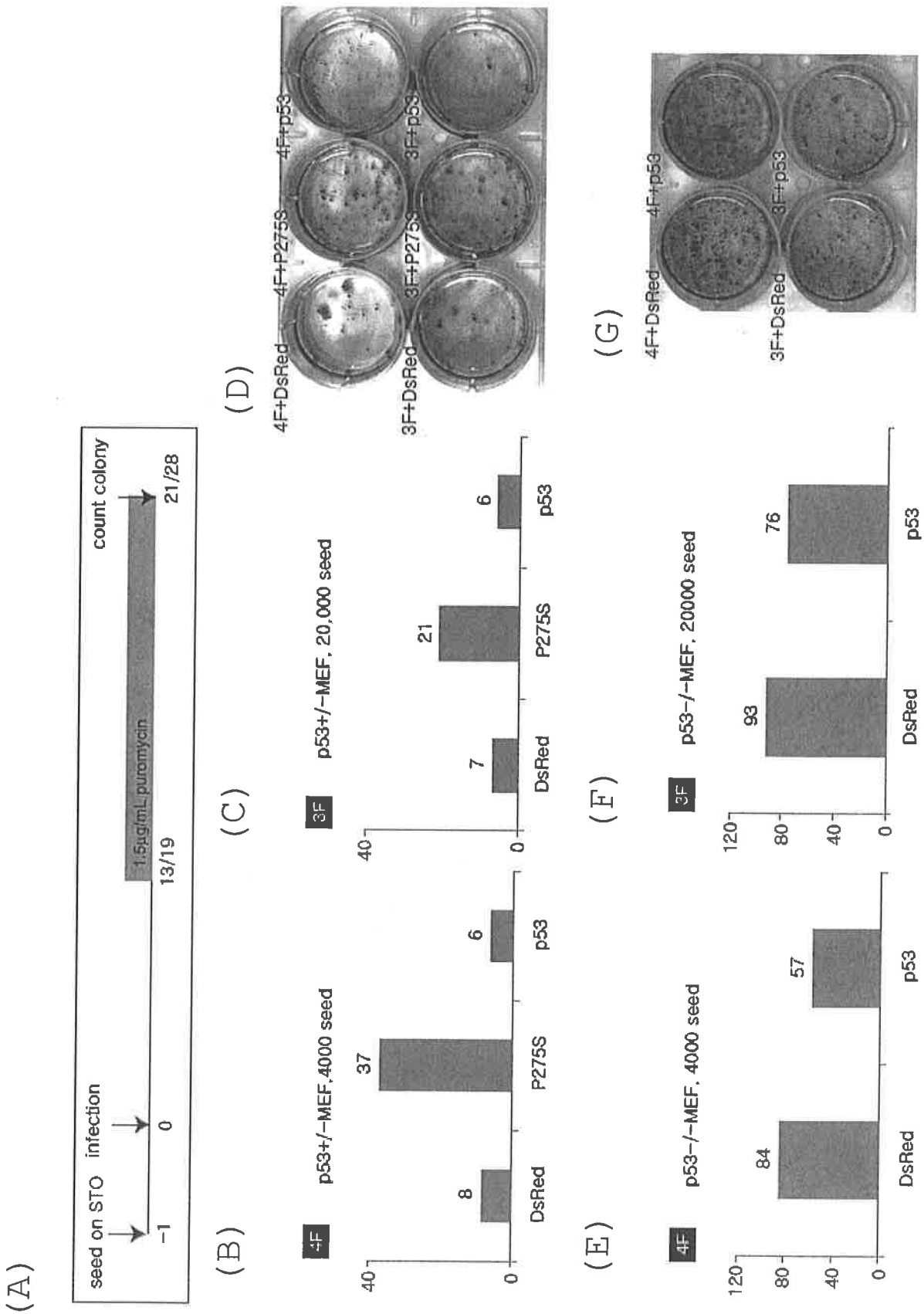
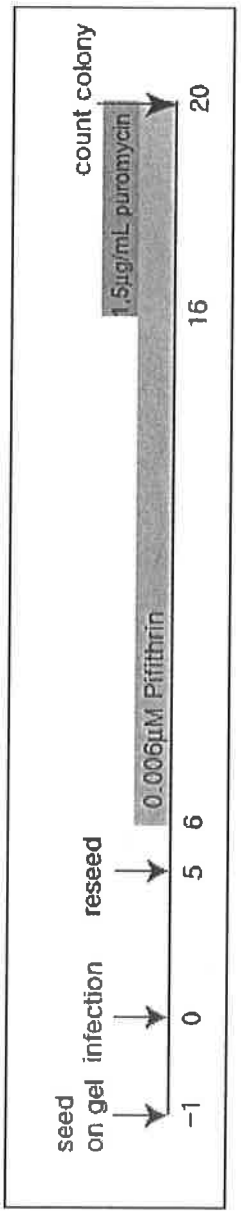

(A)
seed on STO
infection
-1
0
1.5μg/mL puromycin
13/19
count colony
21/28
(B)
4F
p53+/-MEF, 4000 seed
40
0
8
37
6
DsRed
P275S
p53
(C)
3F
p53+/-MEF, 20,000 seed
40
0
7
21
6
DsRed
P275S
p53
(D)
4F+DsRed
4F+P275S
4F+p53
3F+DsRed
3F+P275S
3F+p53
(E)
4F
p53-/-MEF, 4000 seed
120
80
40
0
84
57
DsRed
p53
(F)
3F
p53-/-MEF, 20000 seed
120
80
40
0
93
76
DsRed
p53
(G)
4F+DsRed
4F+p53
3F+DsRed
3F+p53

Fig. 4

(A)


seed
on gel
infection
reseed
count colony
-1
0
5
6
16
20
0.006μM Pifithrin
1.5μg/mL puromycin

(B)

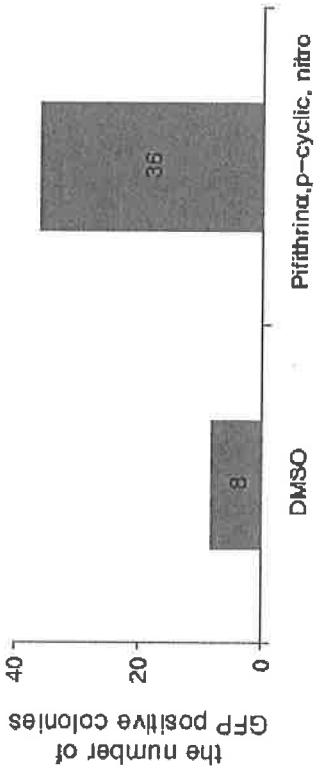

the number of
GFP positive colonies
40
20
0
8
36
DMSO
Pifithrinα,p-cyclic, nitro

Fig. 5

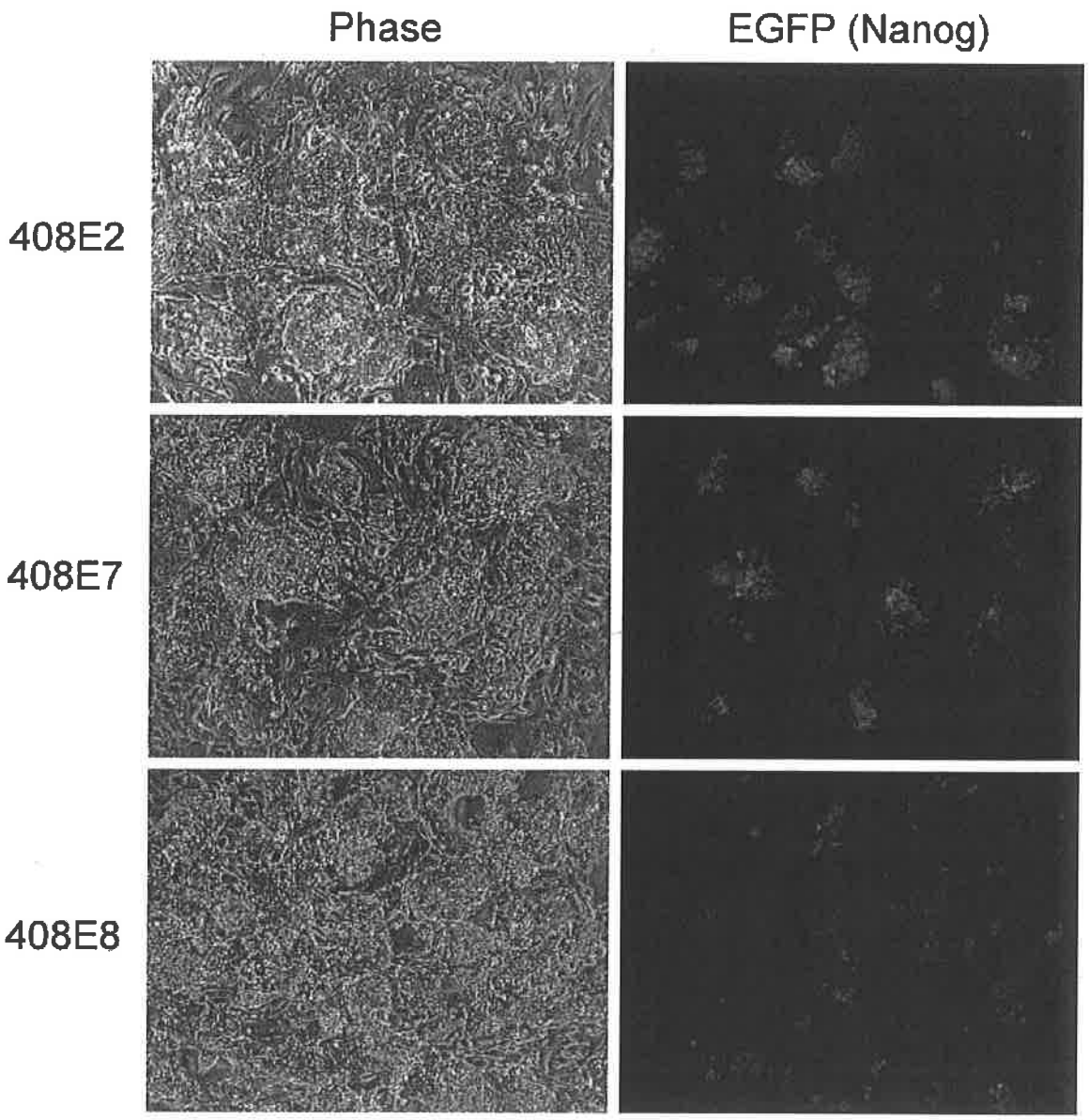


Fig. 6

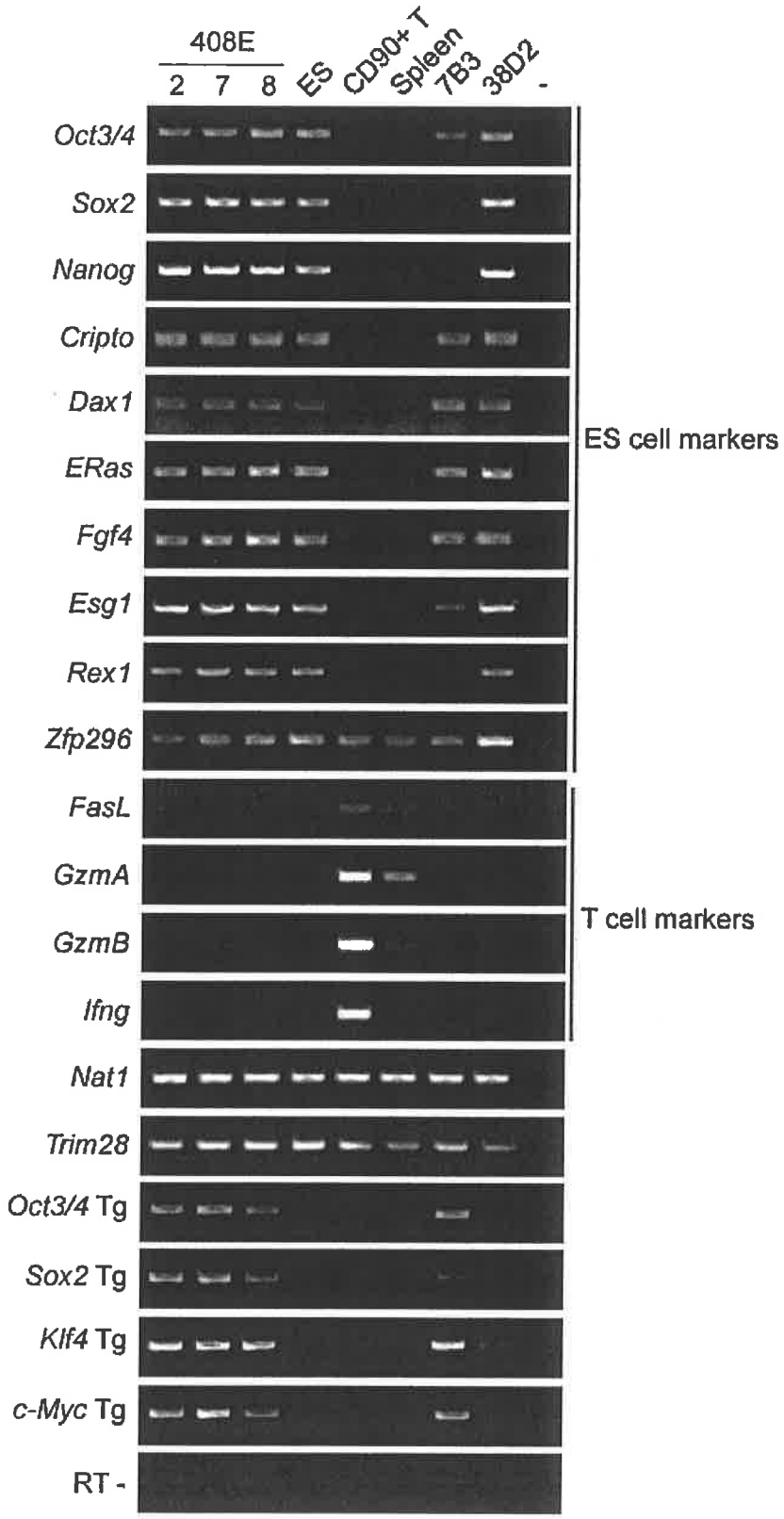

408E
2
7
8
ES
CD90+ T
Spleen
7B3
38D2
-
Oct3/4
Sox2
Nanog
Cripto
Dax1
ERas
Fgf4
Esg1
Rex1
Zfp296
ES cell markers
FasL
GzmA
GzmB
Ifng
T cell markers
Nat1
Trim28
Oct3/4 Tg
Sox2 Tg
Klf4 Tg
c-Myc Tg
RT -

Fig. 7

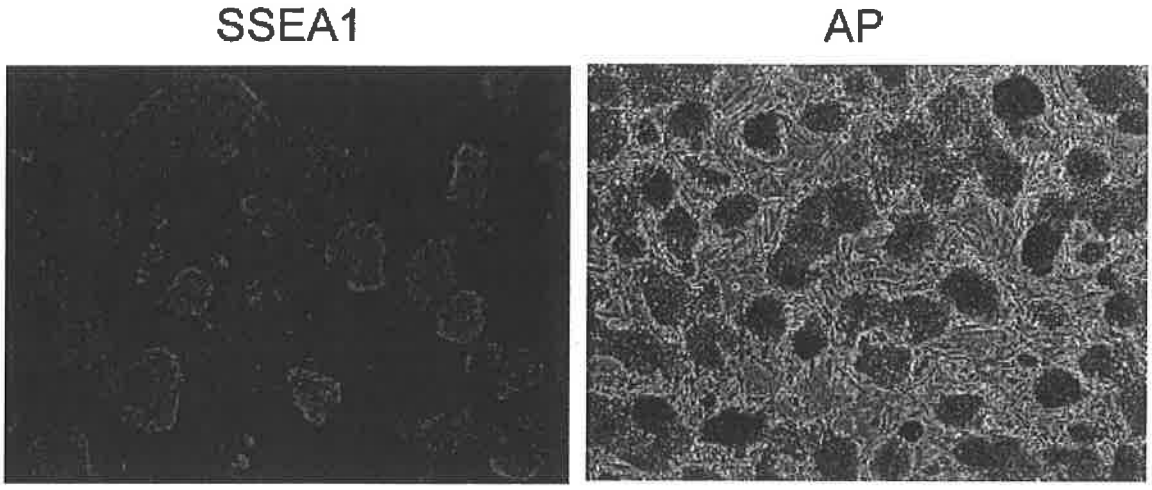


Fig. 8

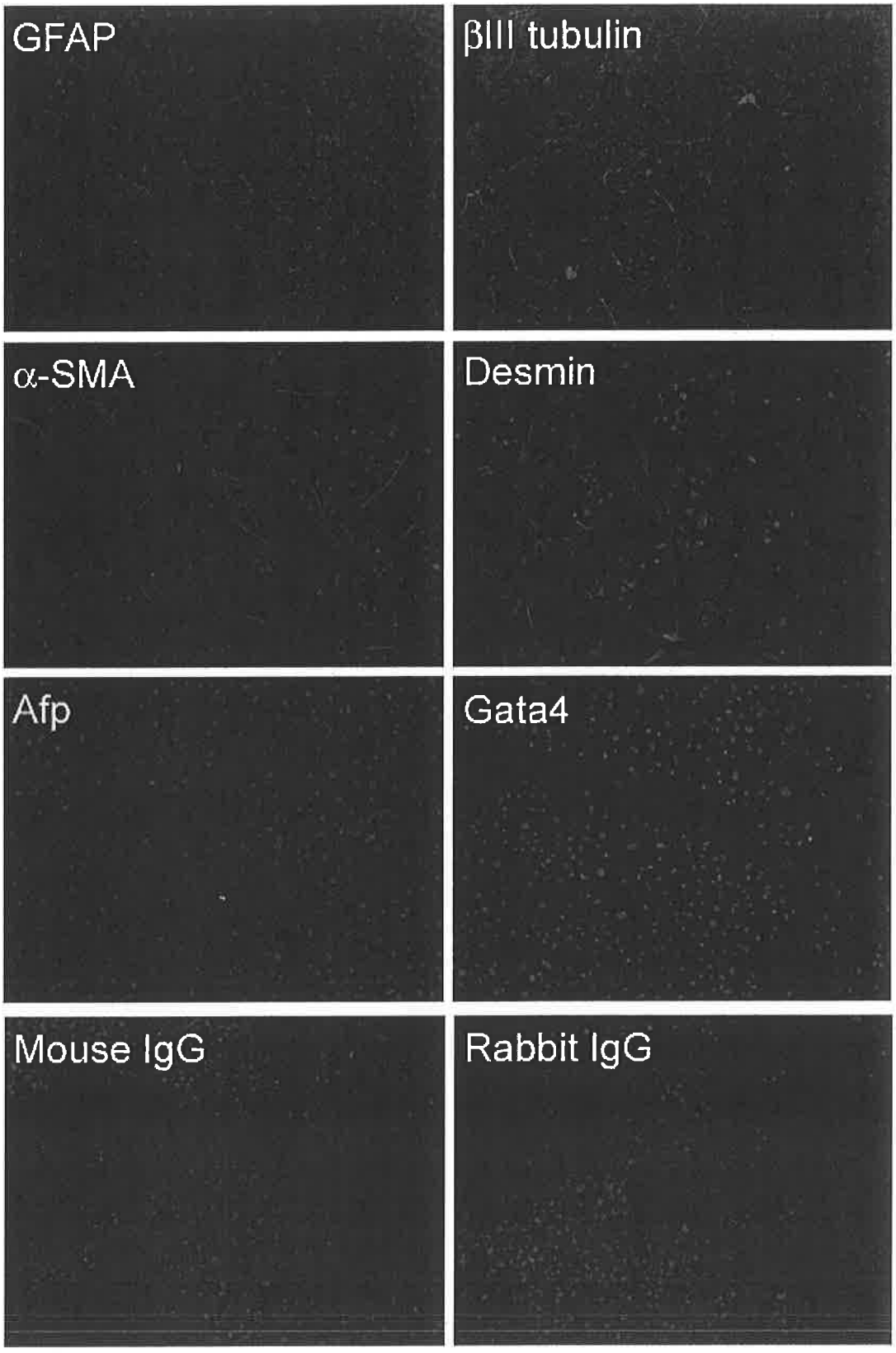

GFAP
βIII tubulin
α-SMA
Desmin
Afp
Gata4
Mouse IgG
Rabbit IgG

Fig. 9

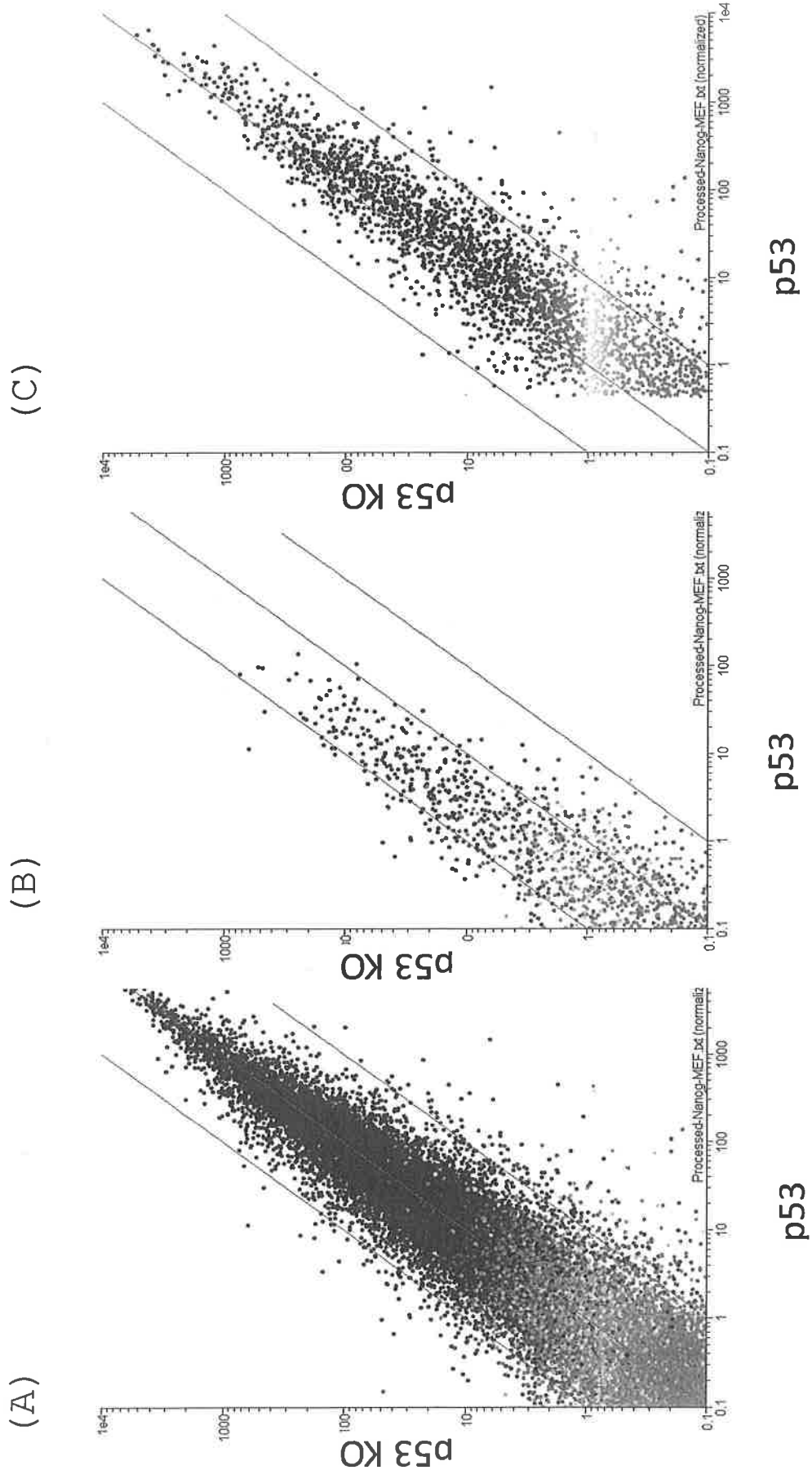

(A)
(B)
(C)
p53 KO
p53
p53 KO
p53
p53 KO
p53
Processed-Nanog-MEF.txt (normaliz
Processed-Nanog-MEF.txt (normaliz
Processed-Nanog-MEF.txt (normalized)

Fig. 10



Fig. 11

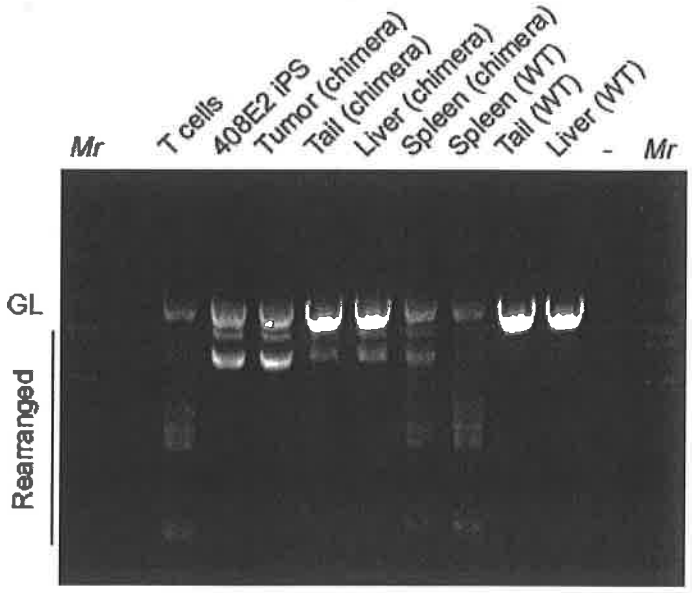

Mr
T cells
408E2 iPS
Tumor (chimera)
Tail (chimera)
Liver (chimera)
Spleen (chimera)
Spleen (WT)
Tail (WT)
Liver (WT)
-
Mr
GL
Rearranged

Fig. 12

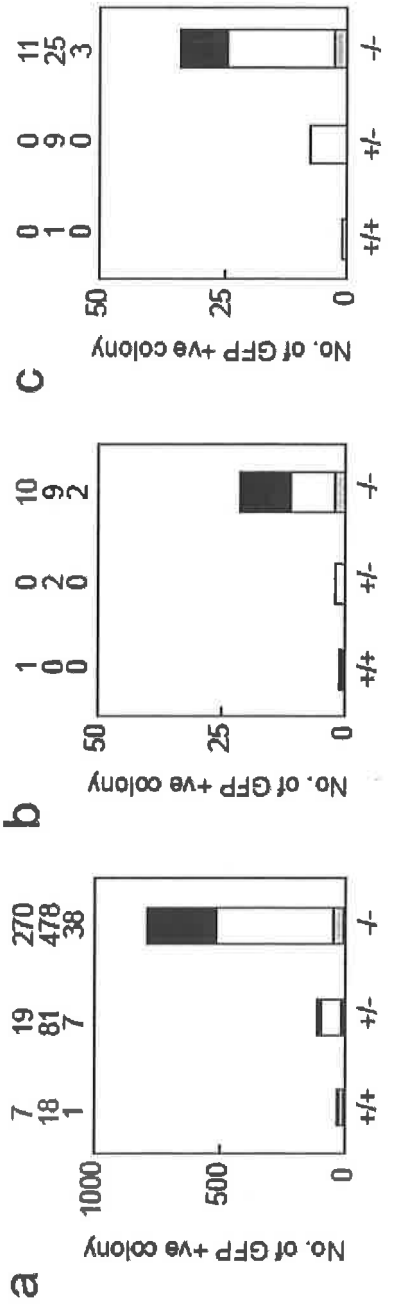

a
No. of GFP +ve colony
1000
500
0
7
18
1
19
81
7
270
478
38
+/+
+/-
-/-
b
No. of GFP +ve colony
50
25
0
1
0
0
0
2
0
10
9
2
+/+
+/-
-/-
c
No. of GFP +ve colony
50
25
0
0
1
0
0
9
0
11
25
3
+/+
+/-
-/-

Fig. 13

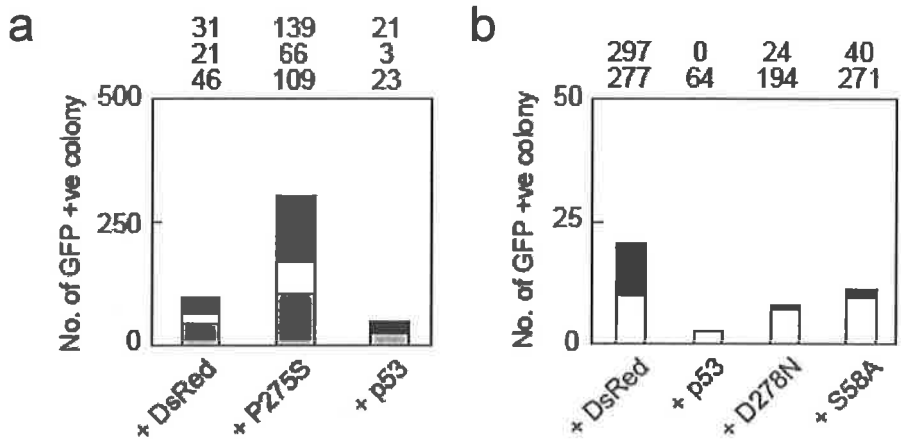

a
31
21
46
139
66
109
21
3
23
500
250
0
No. of GFP +ve colony
+ DsRed
+ P275S
+ p53
b
297
277
0
64
24
194
40
271
50
25
0
No. of GFP +ve colony
+ DsRed
+ p53
+ D278N
+ S58A

Fig. 14

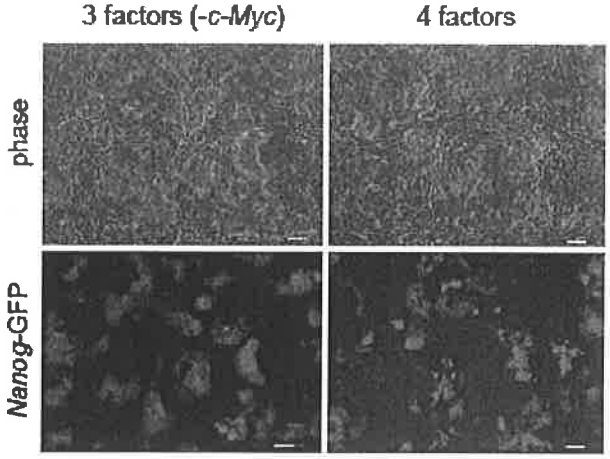

3 factors (-c-Myc)
4 factors
phase
Nanog-GFP

Fig. 15

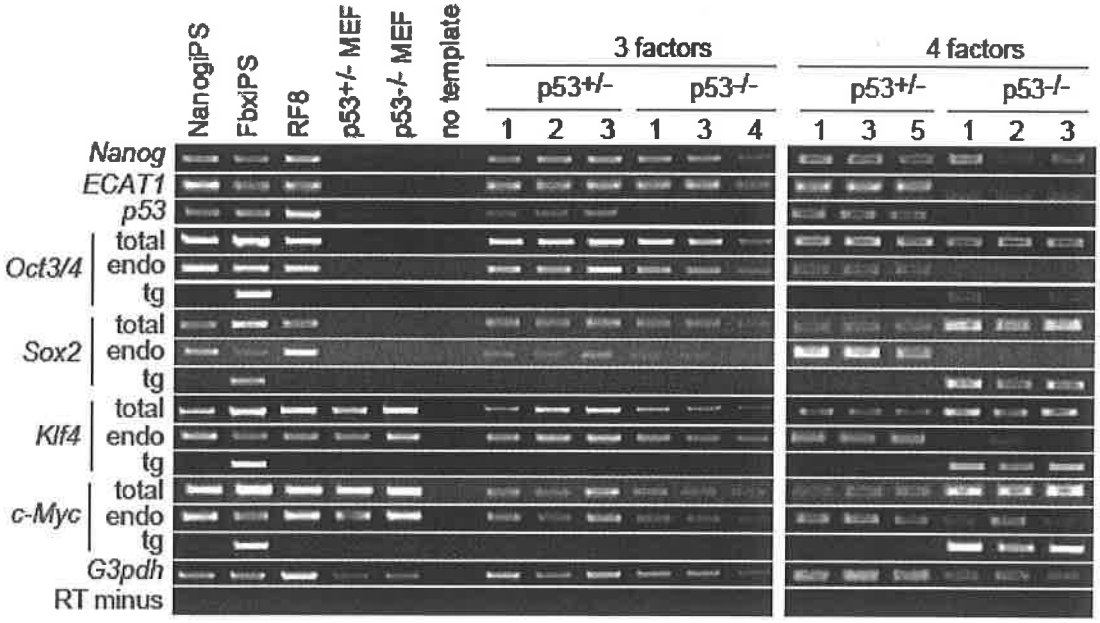

NanogiPS
FbxiPS
RF8
p53+/- MEF
p53-/- MEF
no template
3 factors
4 factors
p53+/-
p53-/-
1 2 3 1 3 4
1 3 5 1 2 3
Nanog
ECAT1
p53
Oct3/4
Sox2
Klf4
c-Myc
total
endo
tg
G3pdh
RT minus

Fig. 16

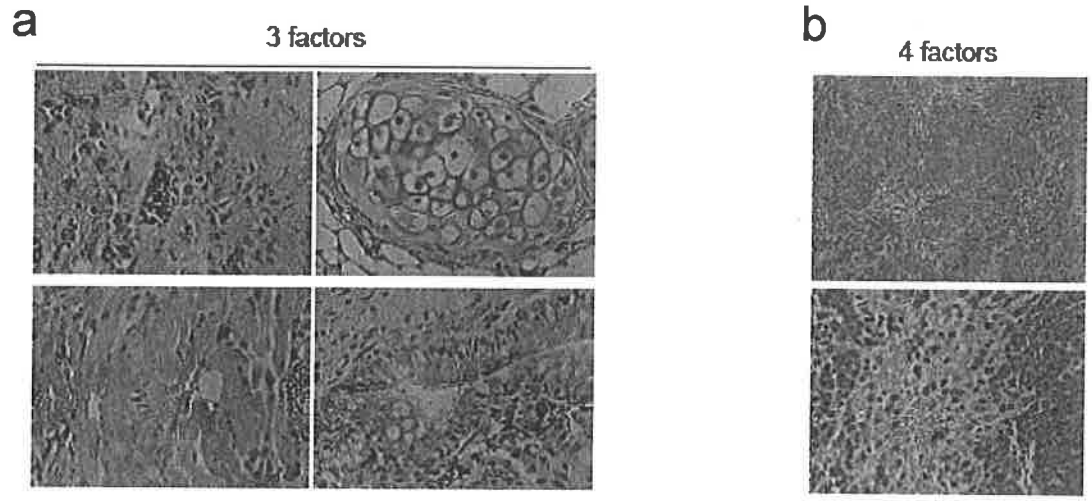

a
3 factors
b
4 factors

Fig. 17

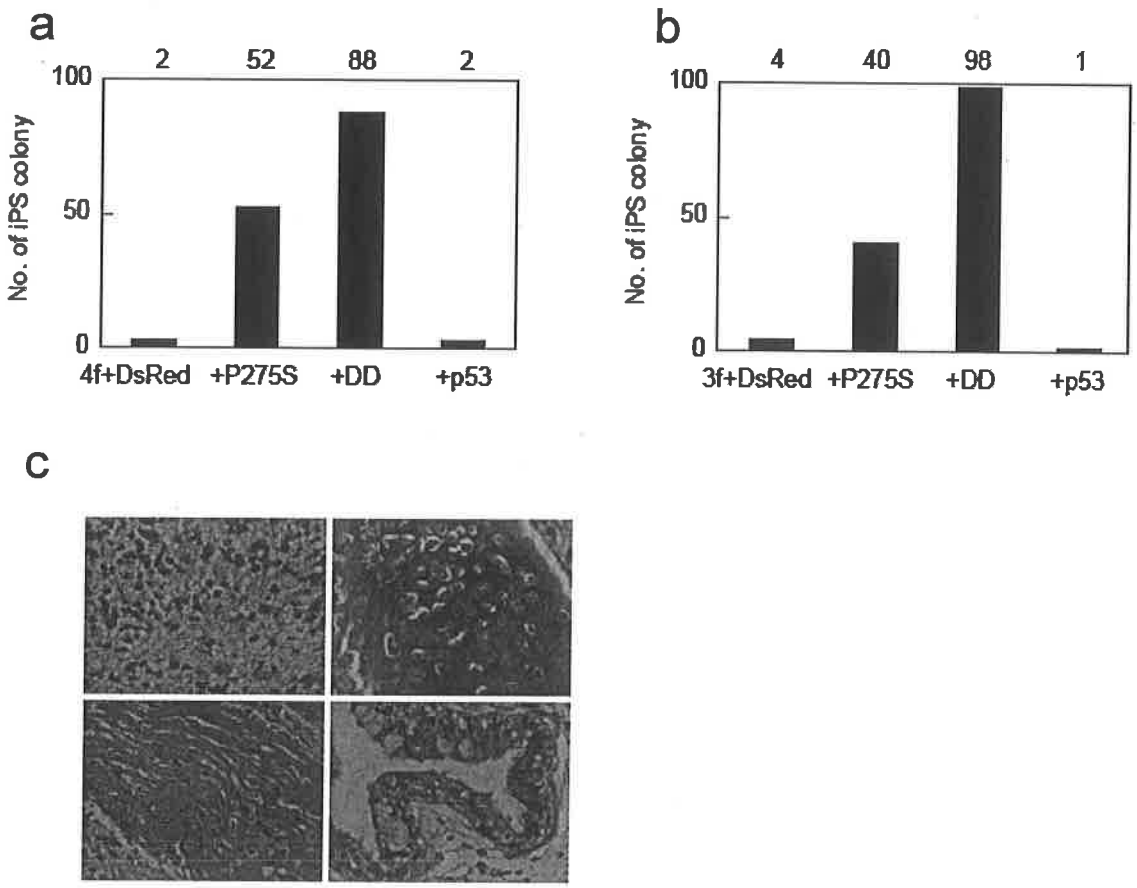

a
2
52
88
2
100
50
0
No. of iPS colony
4f+DsRed
+P275S
+DD
+p53
b
4
40
98
1
100
50
0
No. of iPS colony
3f+DsRed
+P275S
+DD
+p53
c

Fig. 18

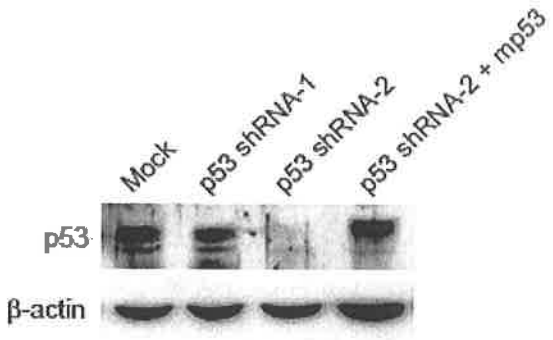

Mock
p53 shRNA-1
p53 shRNA-2
p53 shRNA-2 + mp53
p53
β-actin

Fig. 19

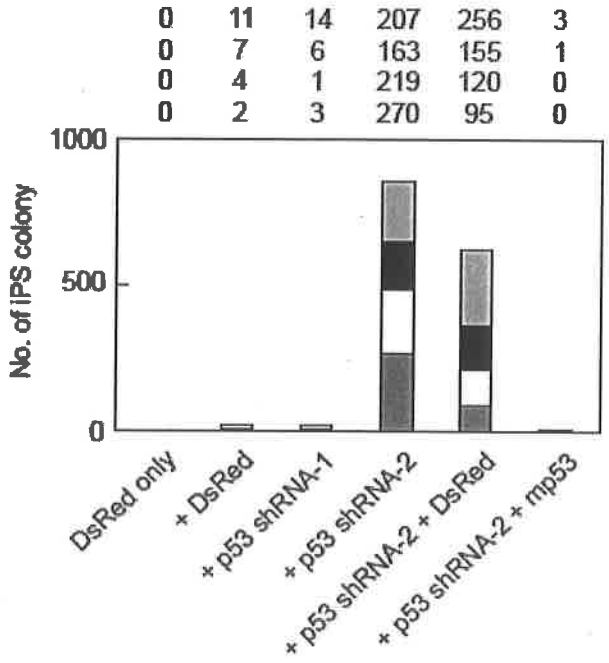

0 11 14 207 256 3
0 7 6 163 155 1
0 4 1 219 120 0
0 2 3 270 95 0
1000
500
0
No. of iPS colony
DsRed only
+ DsRed
+ p53 shRNA-1
+ p53 shRNA-2
+ p53 shRNA-2 + DsRed
+ p53 shRNA-2 + mp53

Fig. 20

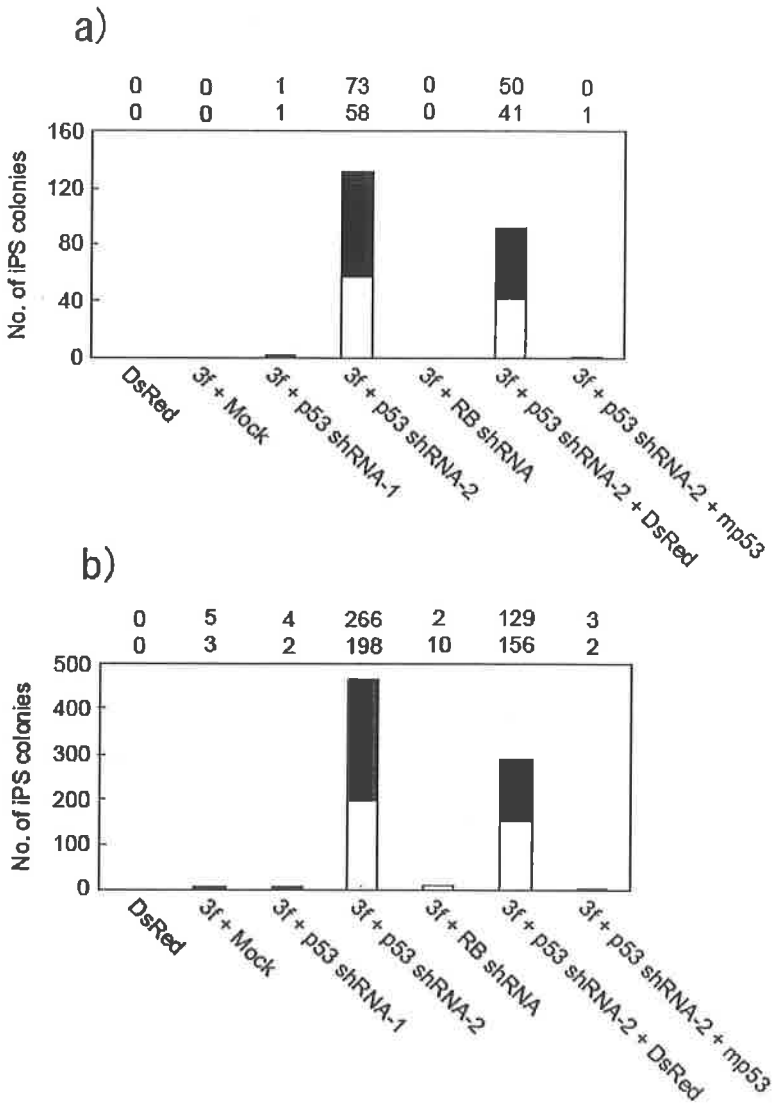

a)
0 0 1 73 0 50 0
0 0 1 58 0 41 1
No. of iPS colonies
160
120
80
40
0
DsRed
3f + Mock
3f + p53 shRNA-1
3f + p53 shRNA-2
3f + RB shRNA
3f + p53 shRNA-2 + DsRed
3f + p53 shRNA-2 + mp53
b)
0 5 4 266 2 129 3
0 3 2 198 10 156 2
No. of iPS colonies
500
400
300
200
100
0
DsRed
3f + Mock
3f + p53 shRNA-1
3f + p53 shRNA-2
3f + RB shRNA
3f + p53 shRNA-2 + DsRed
3f + p53 shRNA-2 + mp53

Fig. 21

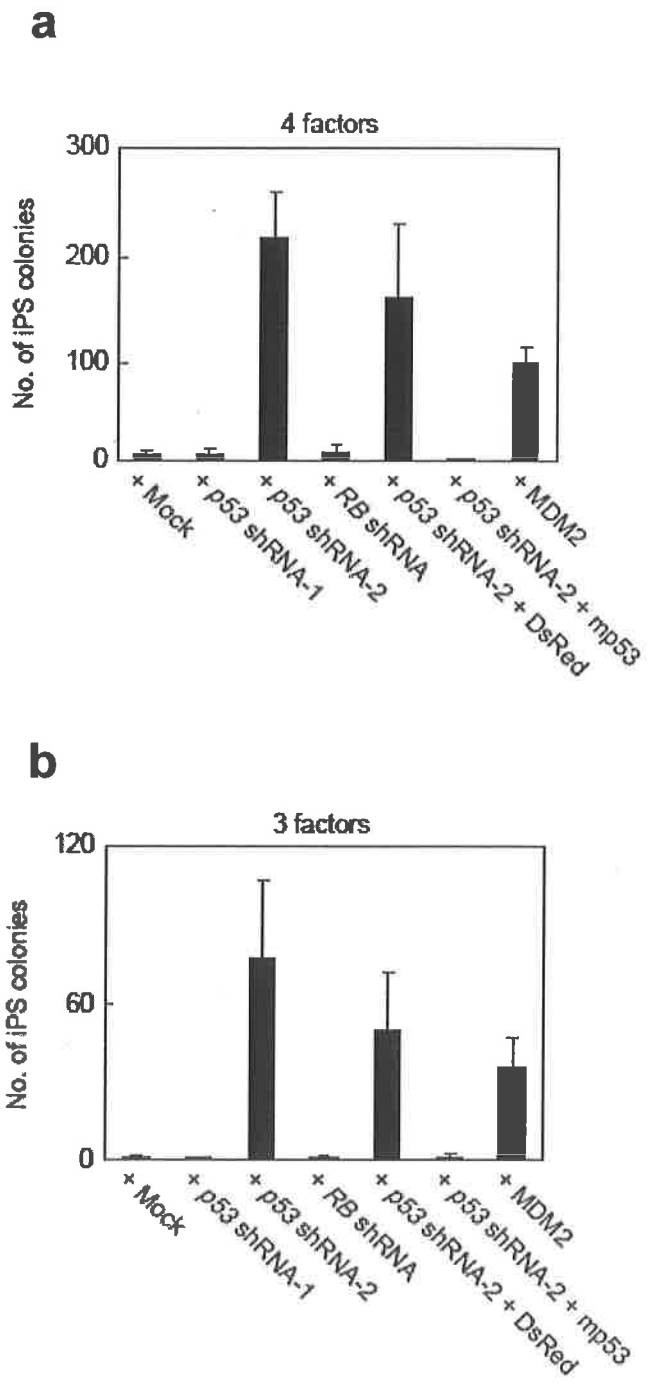

a
4 factors
No. of iPS colonies
300
200
100
0
+ Mock
+ p53 shRNA-1
+ p53 shRNA-2
+ RB shRNA
+ p53 shRNA-2 + DsRed
+ p53 shRNA-2 + mp53
+ MDM2
b
3 factors
No. of iPS colonies
120
60
0
+ Mock
+ p53 shRNA-1
+ p53 shRNA-2
+ RB shRNA
+ p53 shRNA-2 + DsRed
+ p53 shRNA-2 + mp53
+ MDM2

Fig. 22



Fig. 23

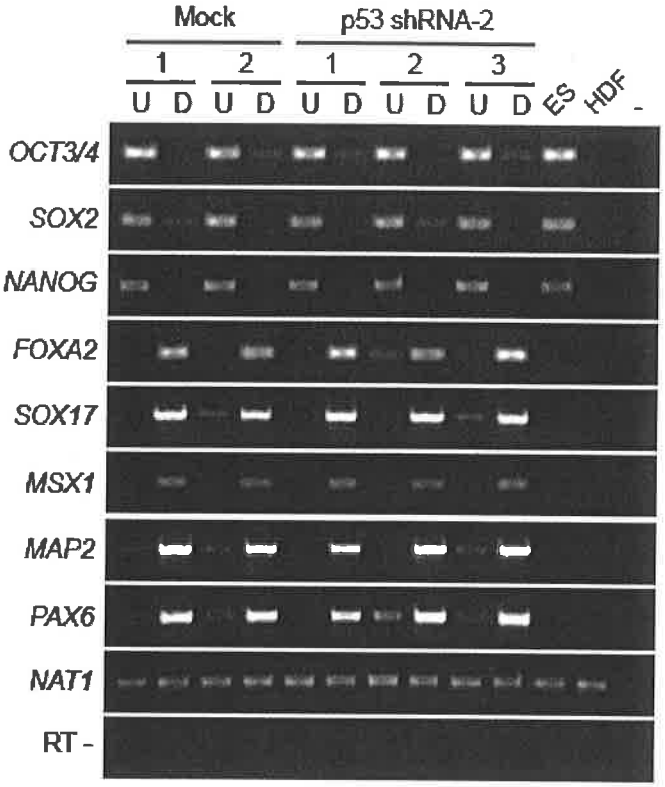

Mock
p53 shRNA-2
1
2
1
2
3
U D U D U D U D U D ES HDF -
OCT3/4
SOX2
NANOG
FOXA2
SOX17
MSX1
MAP2
PAX6
NAT1
RT -

Fig. 24

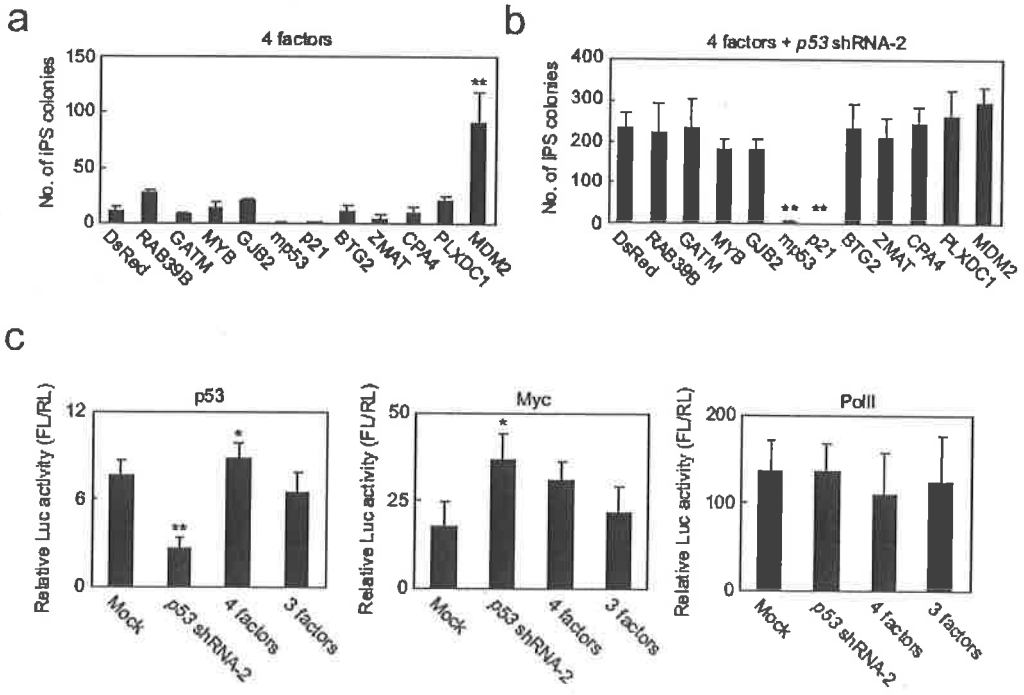
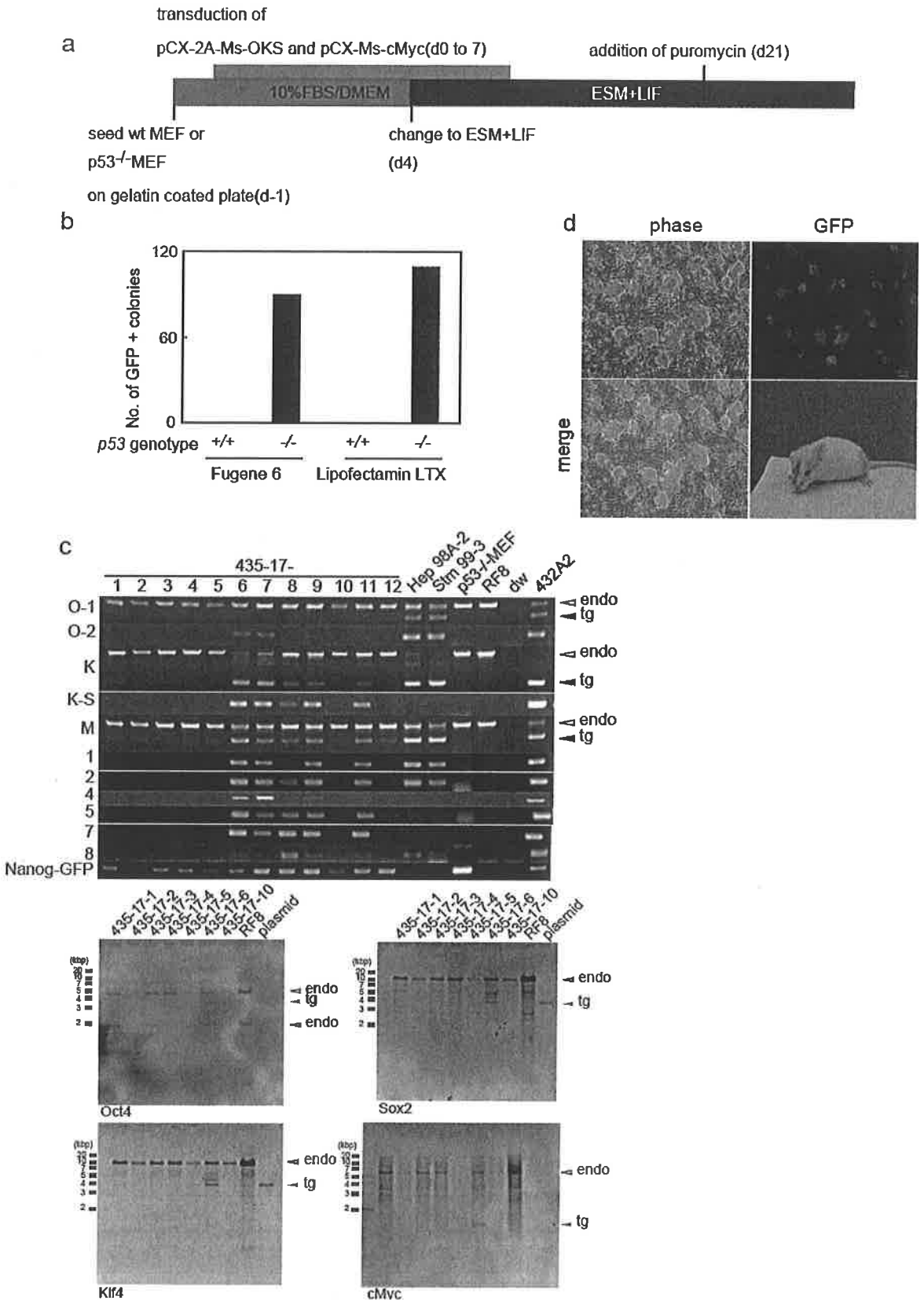

a
4 factors
No. of iPS colonies
150
100
50
0
**
DsRed
RAB39B
GATM
MYB
GJB2
mp53
p21
BTG2
ZMAT
CPA4
PLXDC1
MDM2
b
4 factors + p53 shRNA-2
No. of iPS colonies
400
300
200
100
0
** **
DsRed
RAB39B
GATM
MYB
GJB2
mp53
p21
BTG2
ZMAT
CPA4
PLXDC1
MDM2
c
p53
Relative Luc activity (FL/RL)
12
6
0
** *
Mock
p53 shRNA-2
4 factors
3 factors
Myc
Relative Luc activity (FL/RL)
50
25
0
*
Mock
p53 shRNA-2
4 factors
3 factors
PolII
Relative Luc activity (FL/RL)
200
100
0
Mock
p53 shRNA-2
4 factors
3 factors

Fig. 25


a
transduction of
pCX-2A-Ms-OKS and pCX-Ms-cMyc(d0 to 7)
addition of puromycin (d21)
10%FBS/DMEM
ESM+LIF
seed wt MEF or
p53-/-MEF
on gelatin coated plate(d-1)
change to ESM+LIF
(d4)
b
No. of GFP + colonies
120
60
0
p53 genotype
+/+
-/-
+/+
-/-
Fugene 6
Lipofectamin LTX
d
phase
GFP
merge
c
435-17-
1 2 3 4 5 6 7 8 9 10 11 12
Hep 98A-2
Stm 99-3
p53-/-MEF
RF8
dw
432A2
O-1
O-2
K
K-S
M
1
2
4
5
7
8
Nanog-GFP
endo
tg
435-17-1
435-17-2
435-17-3
435-17-4
435-17-5
435-17-6
435-17-10
RF8
plasmid
Oct4
Sox2
Klf4
cMyc