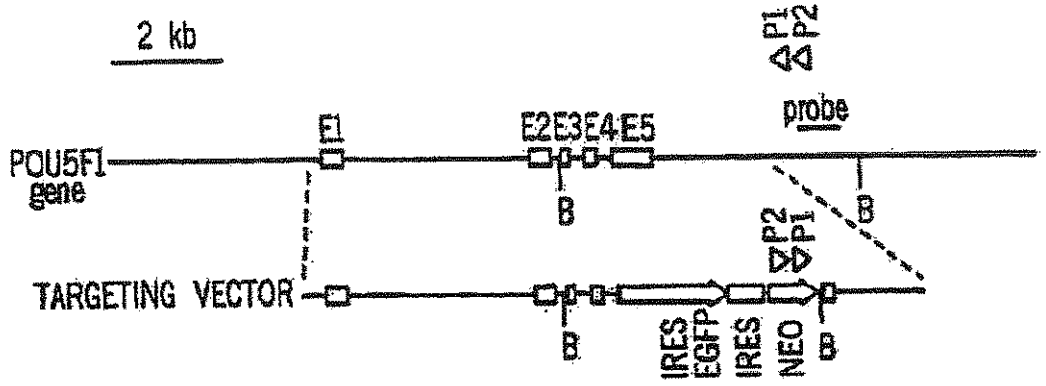

2 kb
P1
P2
probe
E1
E2E3E4E5
POU5F1
gene
B
B
P2
P1
TARGETING VECTOR
B
IRES
EGFP
IRES
NEO
B

FIG. 1

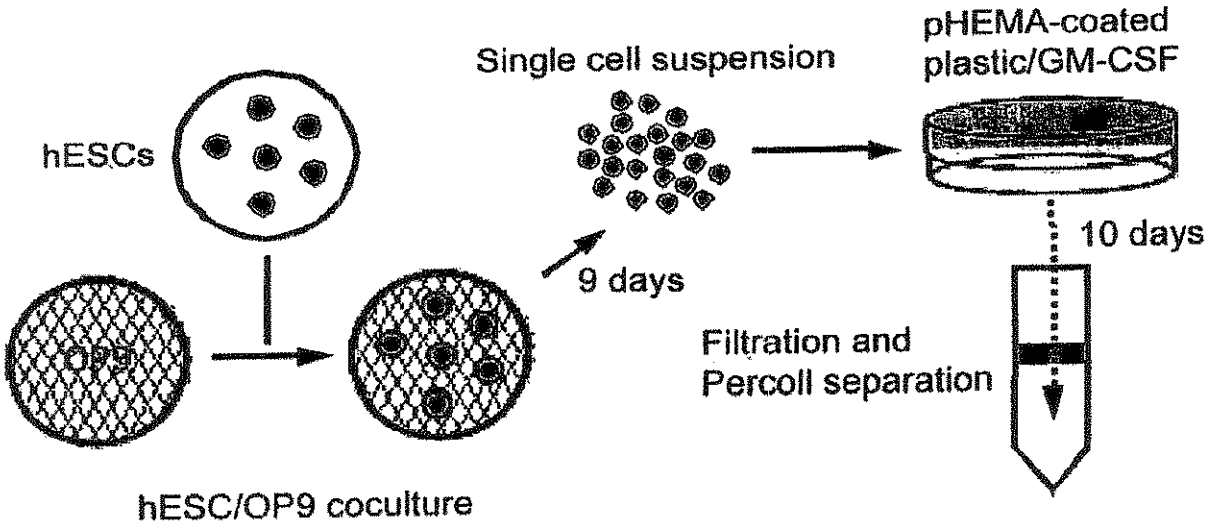

hESCs
OP9
hESC/OP9 coculture
9 days
Single cell suspension
pHEMA-coated
plastic/GM-CSF
10 days
Filtration and
Percoll separation

FIG. 2A

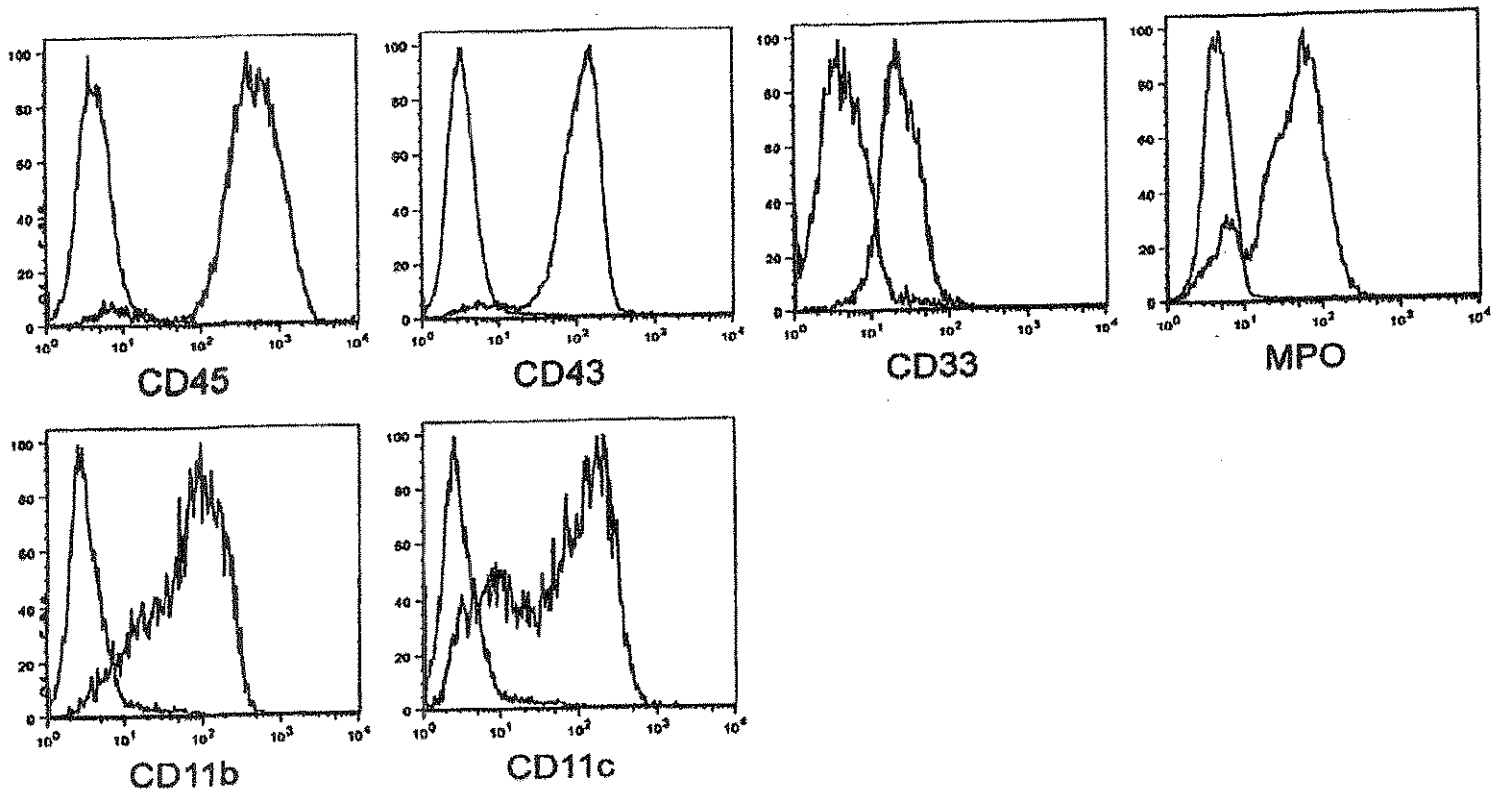


FIG. 2B



FIG 3

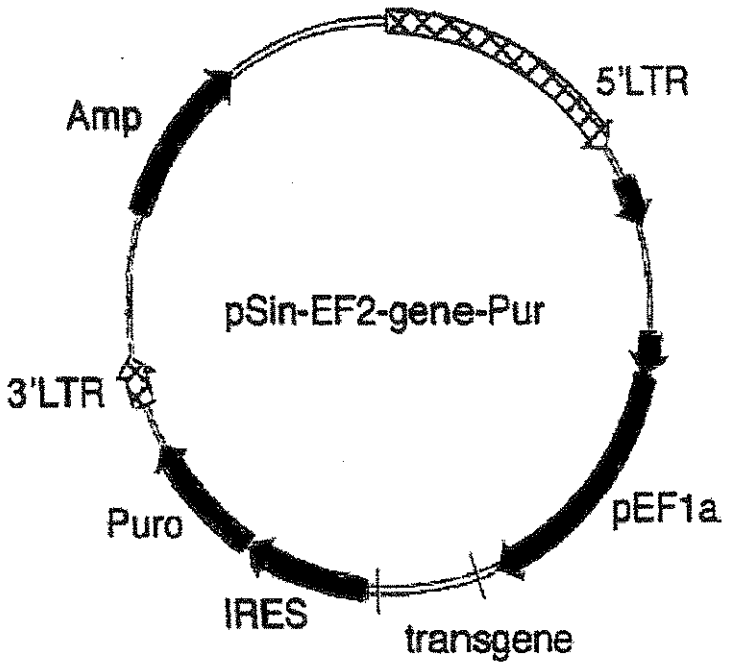


FIG. 4A

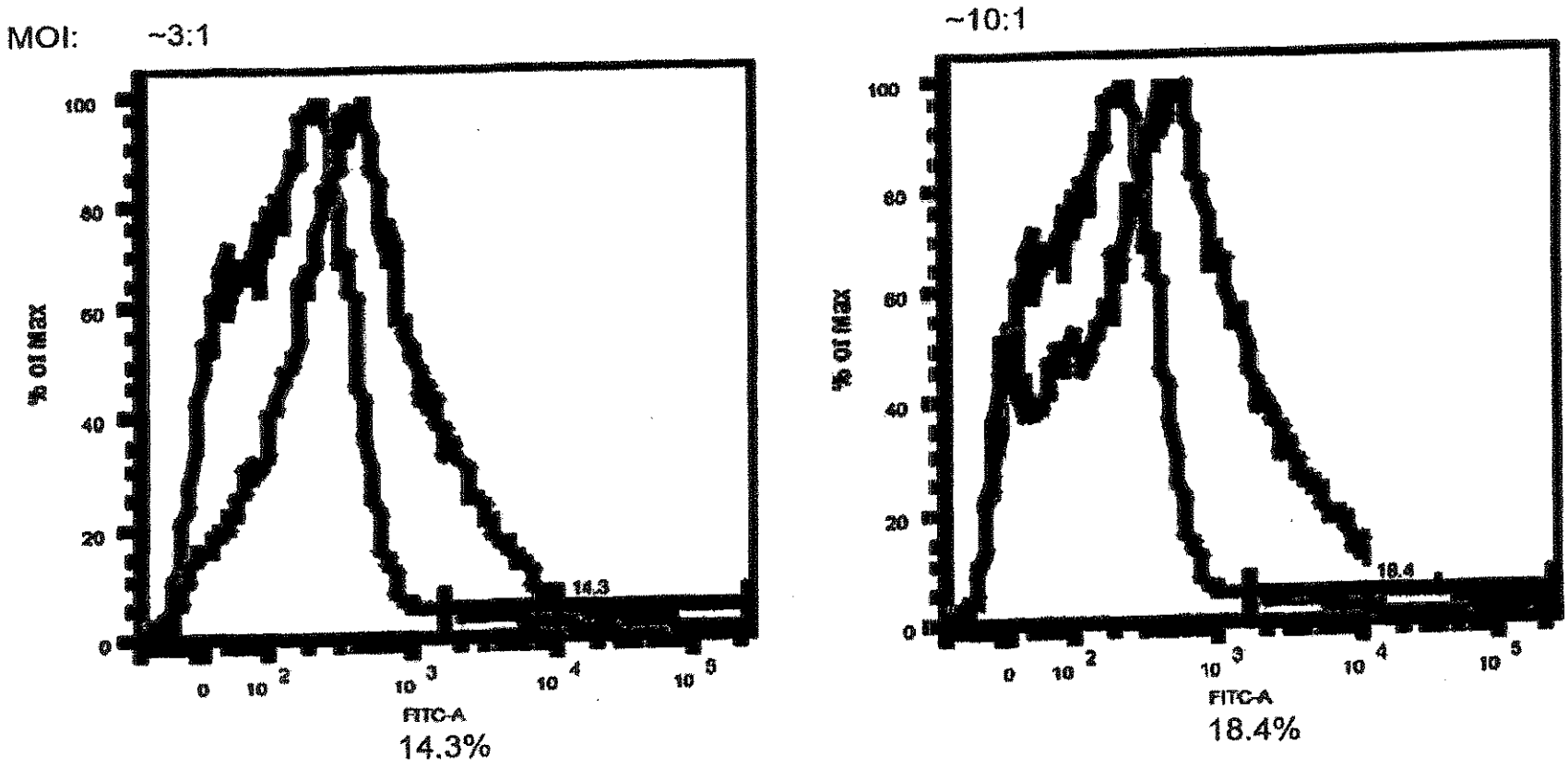
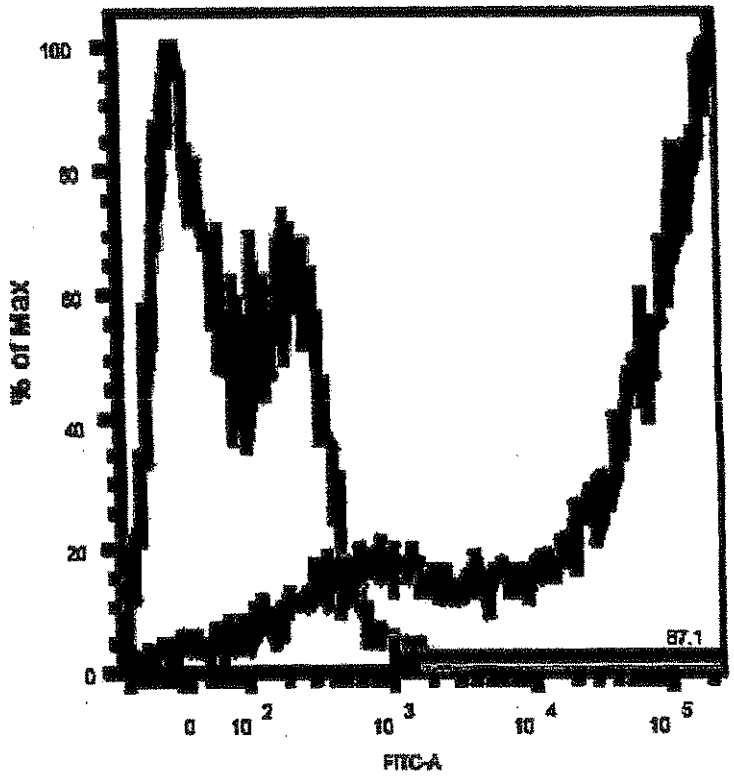

MOI:
~3:1
% of Max
100
80
60
40
20
0
14.3
0
10 2
10 3
10 4
10 5
FITC-A
14.3%
~10:1
% of Max
100
80
60
40
20
0
18.4
0
10 2
10 3
10 4
10 5
FITC-A
18.4%

FIG. 4B

MOI: ~7.1



87.1%

FIG. 4C

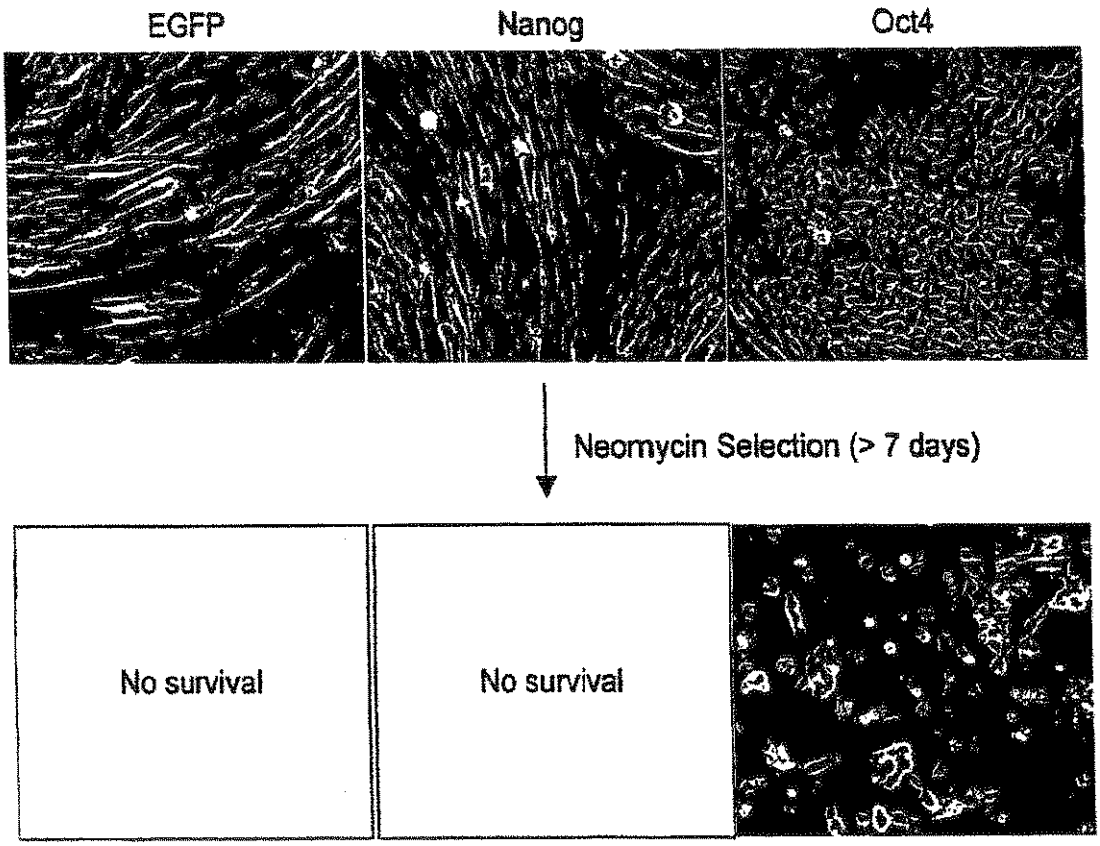

EGFP
Nanog
Oct4
Neomycin Selection (> 7 days)
No survival
No survival

FIG. 5

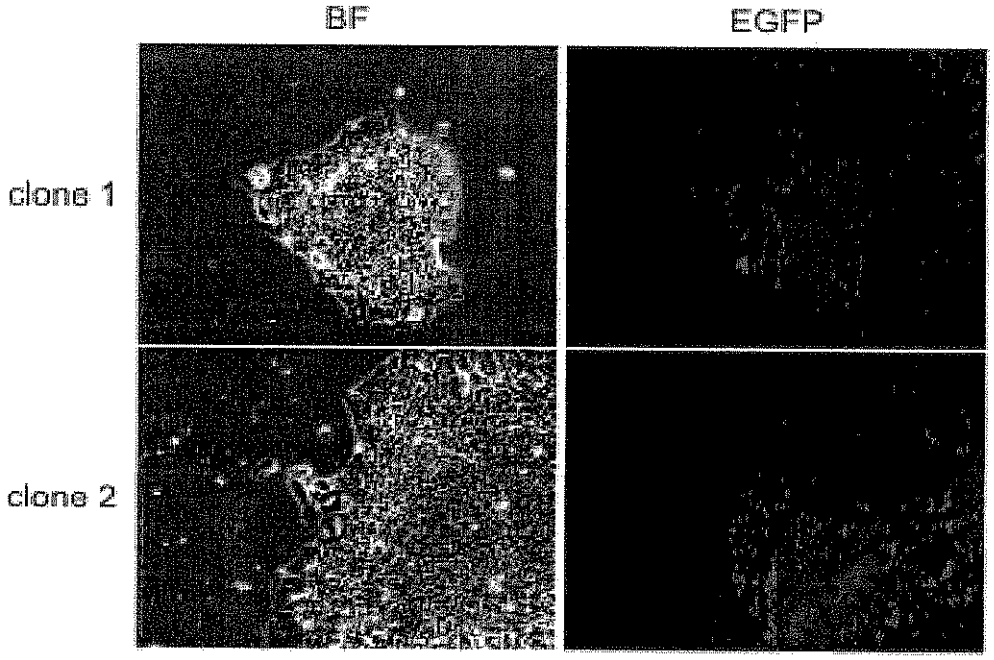


FIG. 6 A

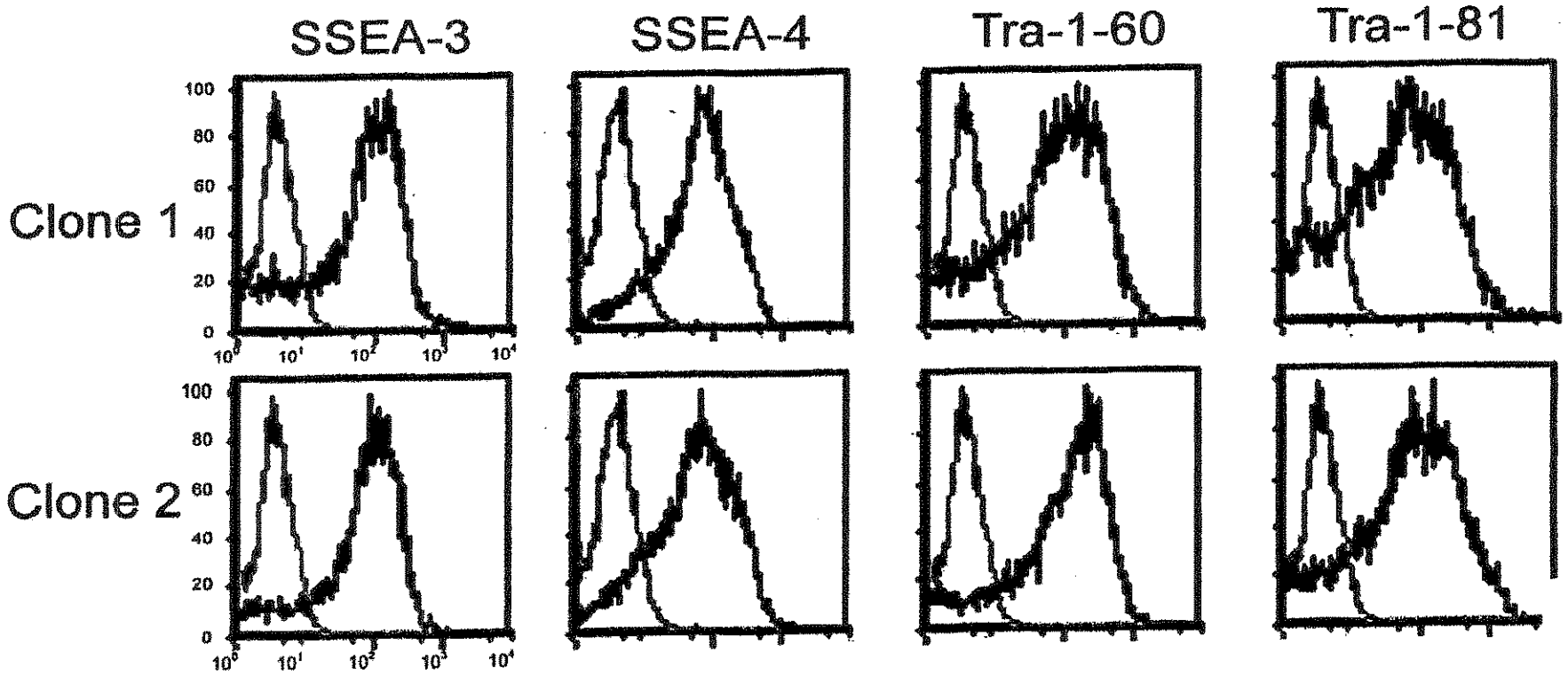

SSEA-3
SSEA-4
Tra-1-60
Tra-1-81
Clone 1
Clone 2
100
80
60
40
20
0
10^0
10^1
10^2
10^3
10^4

FIG. 6B

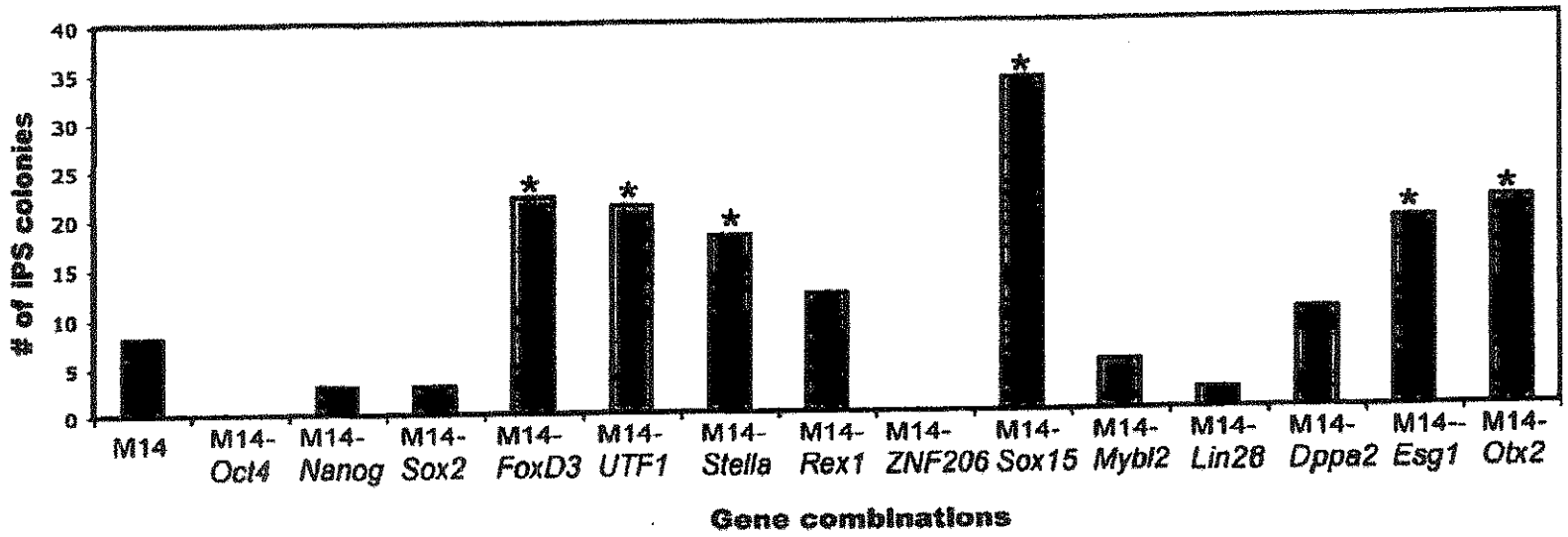

# of IPS colonies
40
35
30
25
20
15
10
5
0
M14
M14-Oct4
M14-Nanog
M14-Sox2
M14-FoxD3
M14-UTF1
M14-Stella
M14-Rex1
M14-ZNF206
M14-Sox15
M14-Mybl2
M14-Lin28
M14-Dppa2
M14--Esg1
M14-Otx2
Gene combinations

FIG 7A

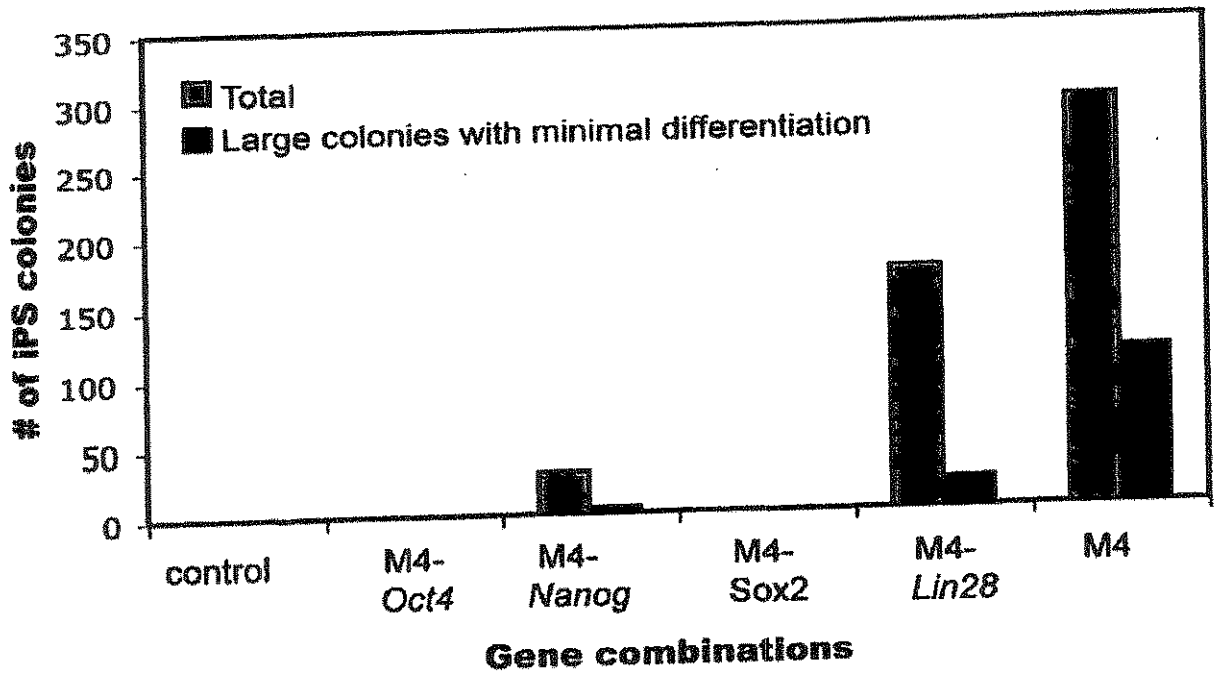

350
300
250
200
150
100
50
0
# of iPS colonies
Total
Large colonies with minimal differentiation
control
M4-
Oct4
M4-
Nanog
M4-
Sox2
M4-
Lin28
M4
Gene combinations

FIG. 7B

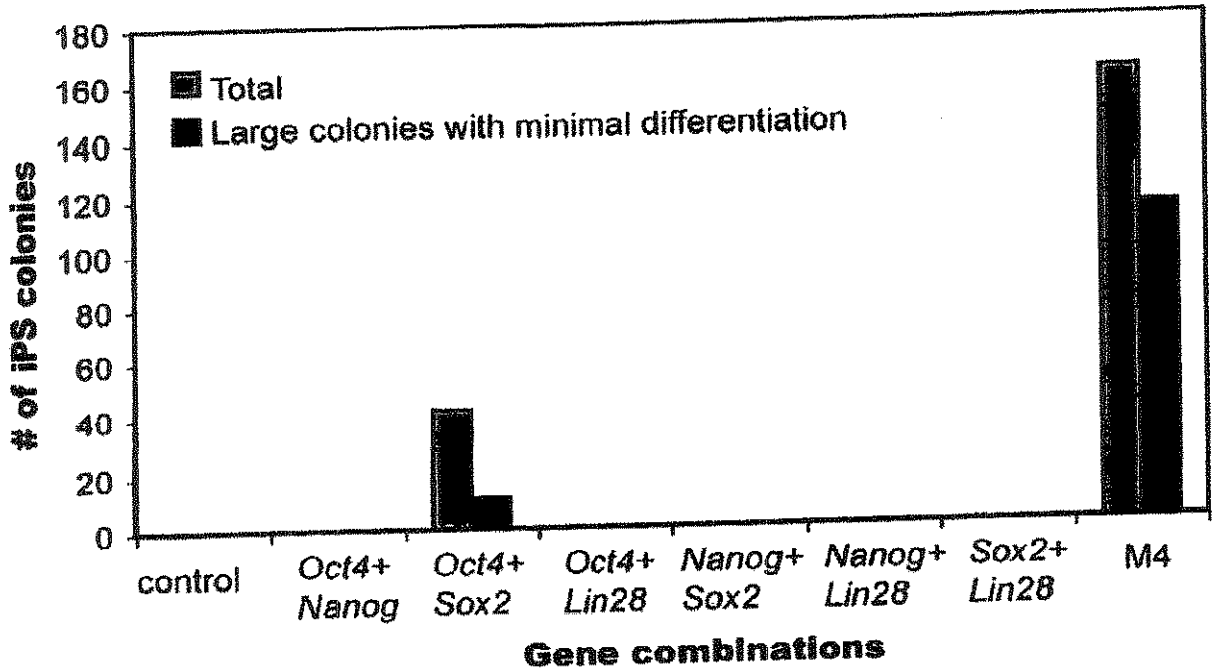

180
160
140
120
100
80
60
40
20
0
# of iPS colonies
Total
Large colonies with minimal differentiation
control
Oct4+ Nanog
Oct4+ Sox2
Oct4+ Lin28
Nanog+ Sox2
Nanog+ Lin28
Sox2+ Lin28
M4
Gene combinations

FIG. 7C

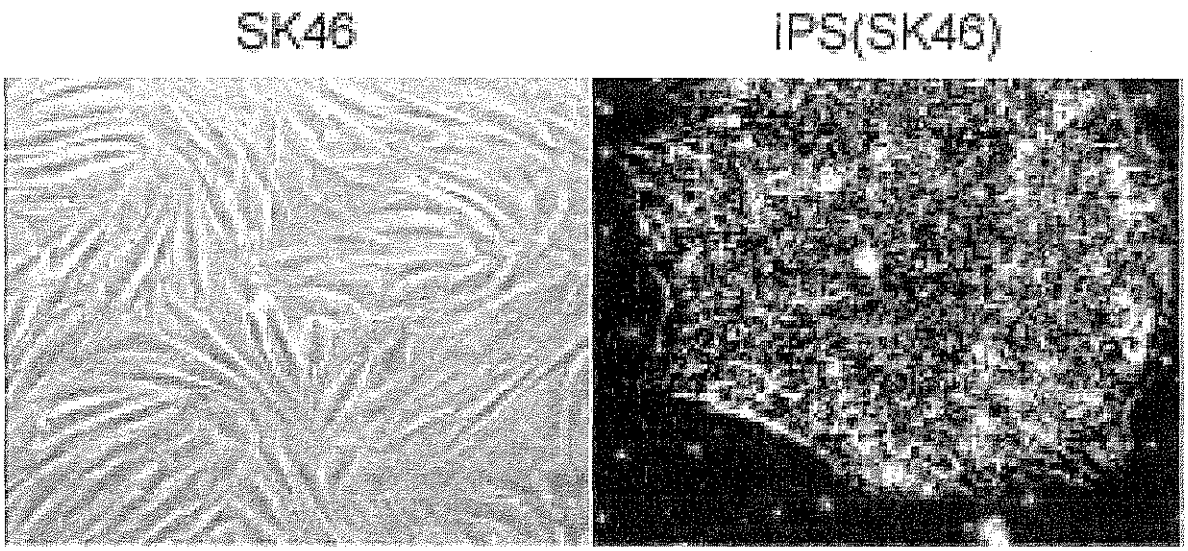


FIG. 8A

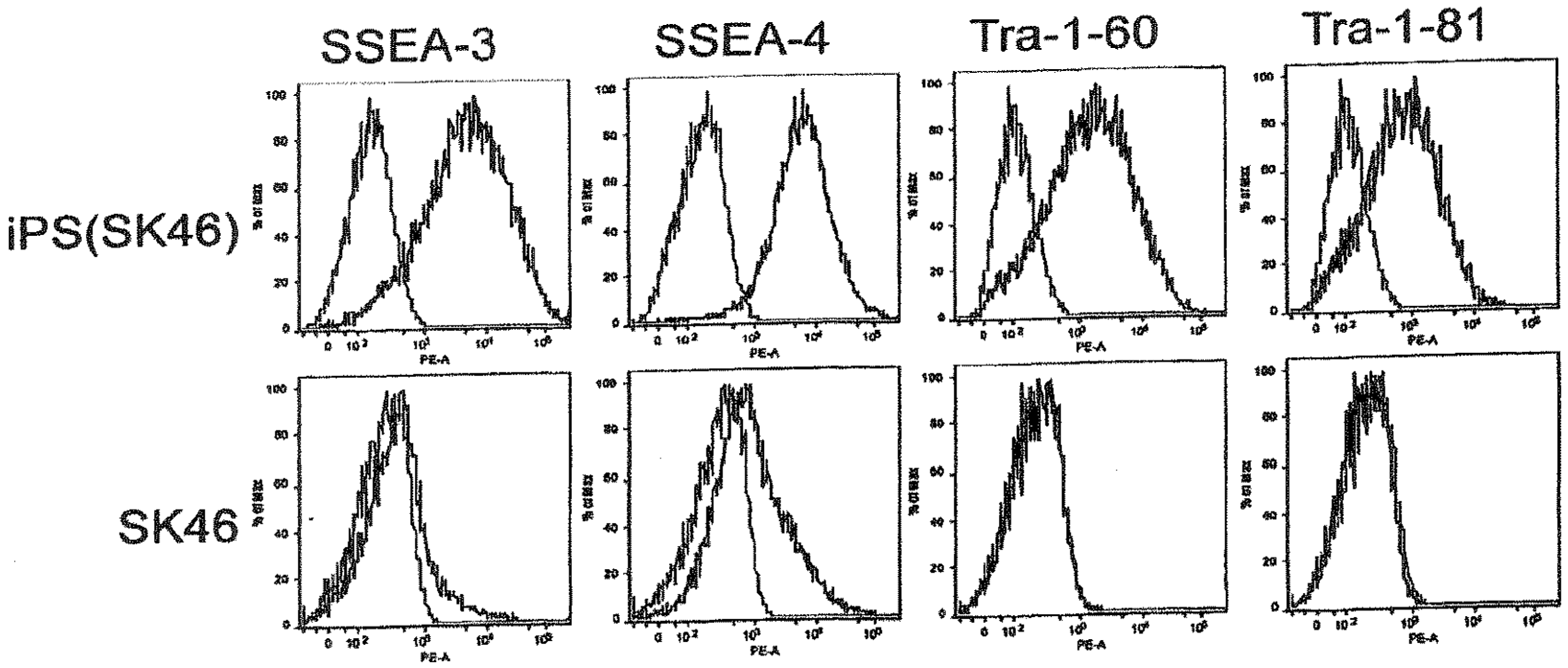


FIG 8B

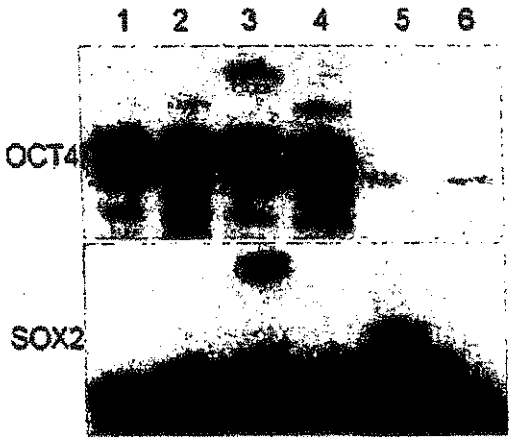

1 2 3 4 5 6
OCT4
SOX2

FIG. 9A

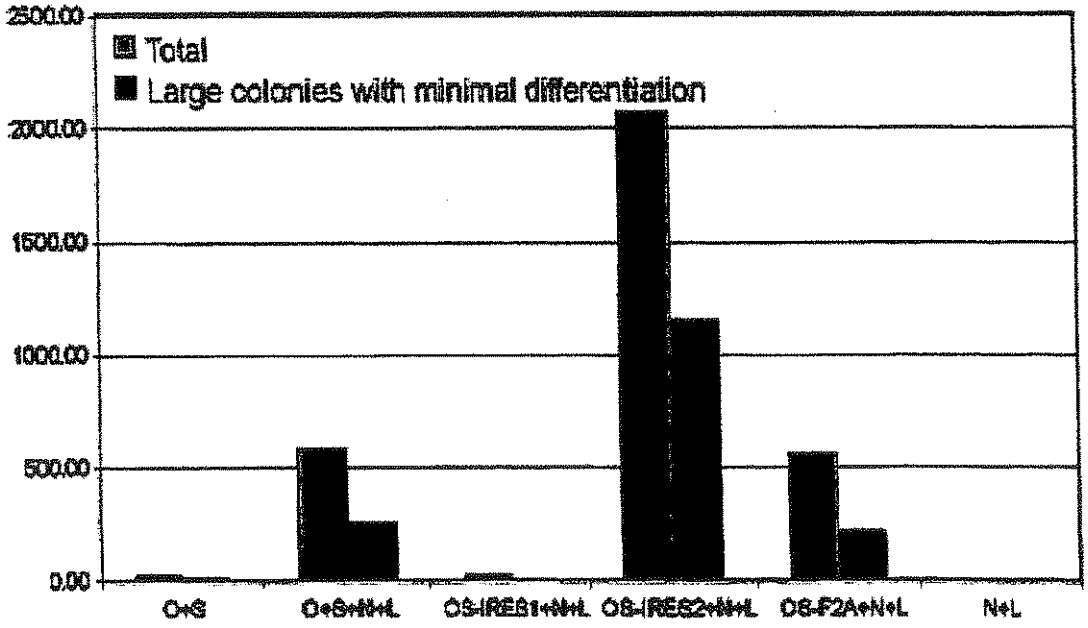

2500.00
2000.00
1500.00
1000.00
500.00
0.00
Total
Large colonies with minimal differentiation
O+S+N+L
N+L

FIG. 9B