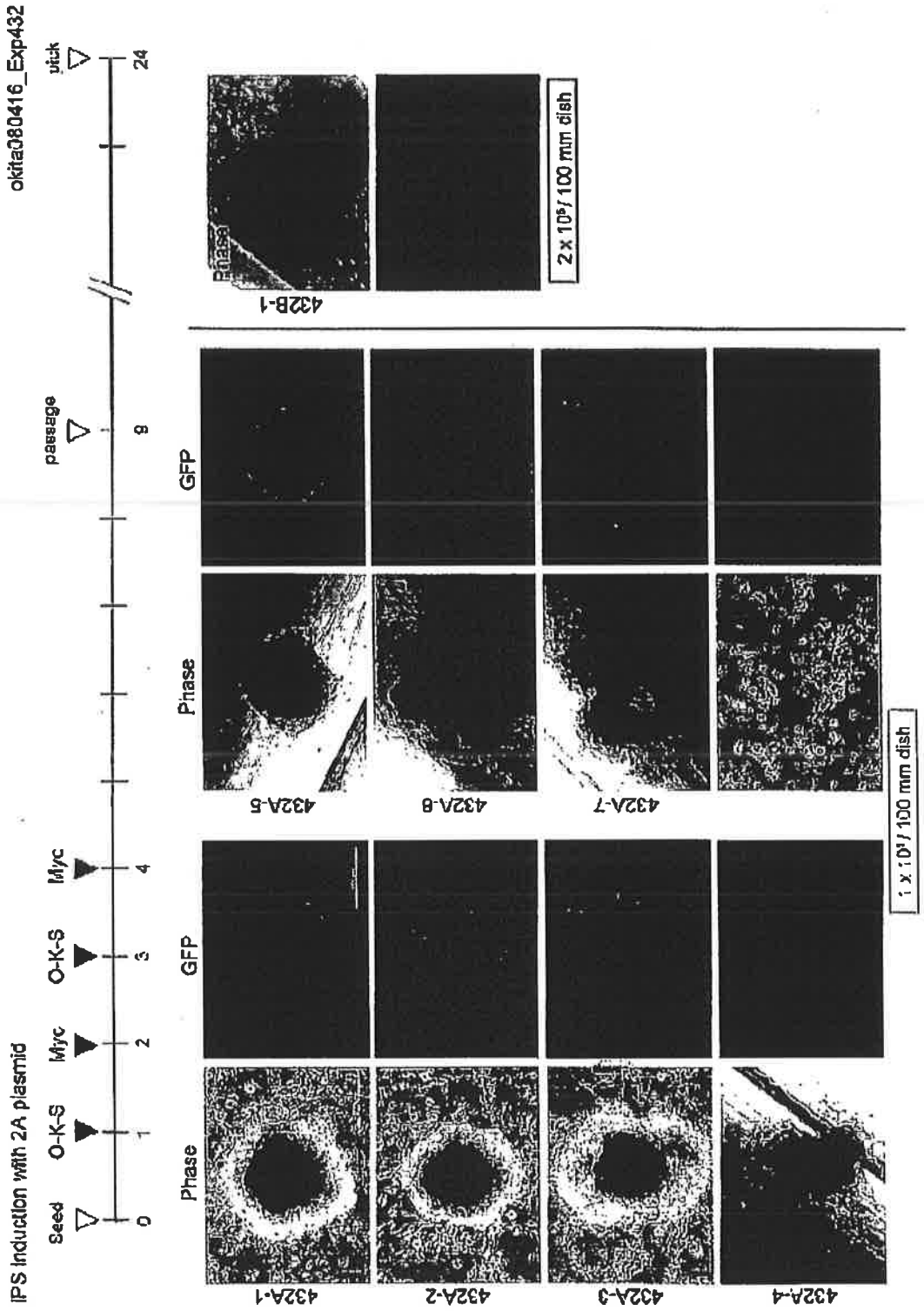
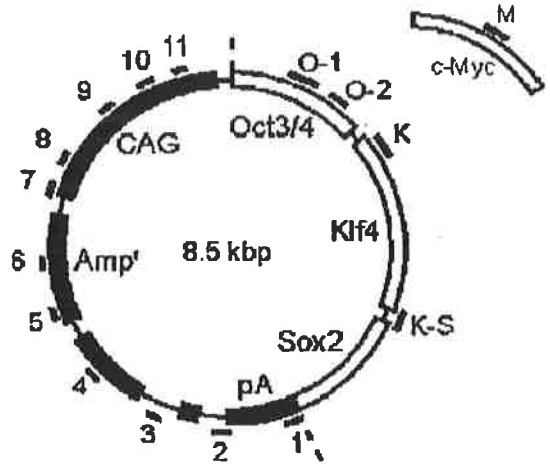
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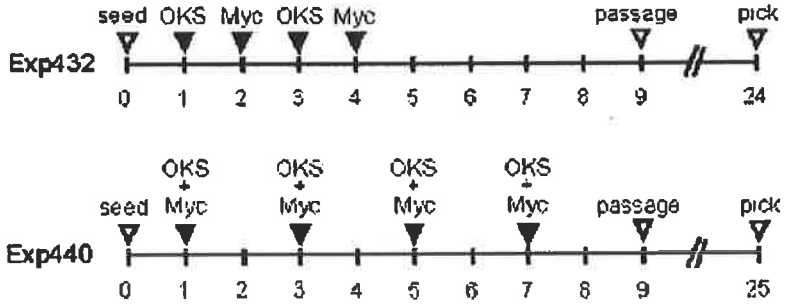
{Fig. 1}



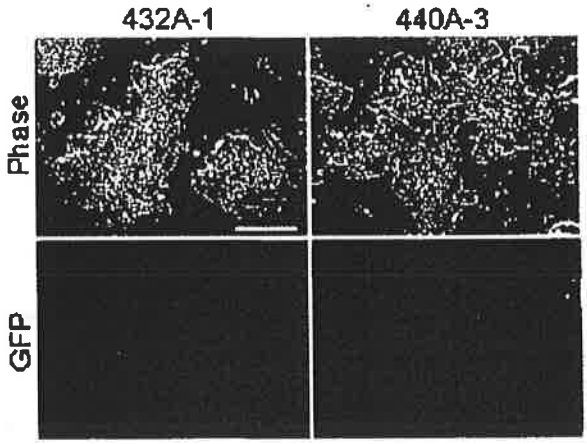
{Fig. 2}



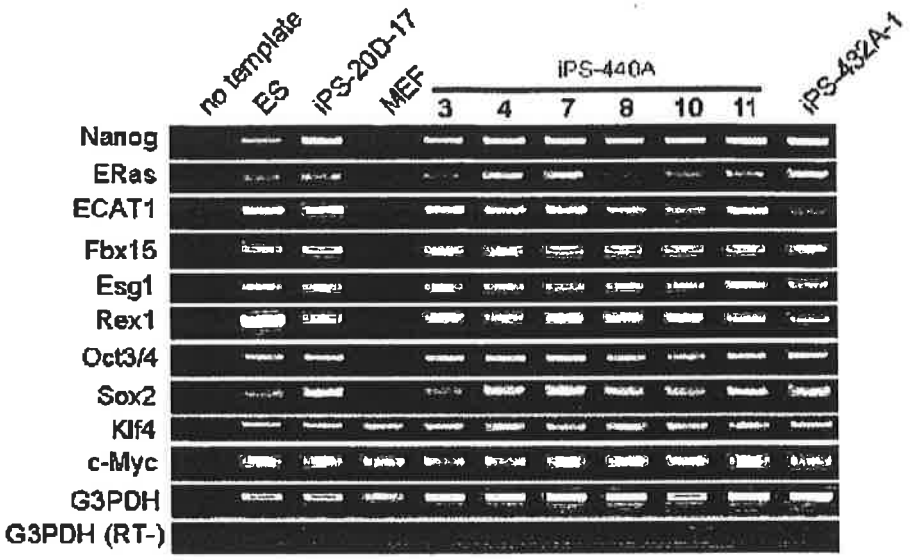
{Fig. 3}



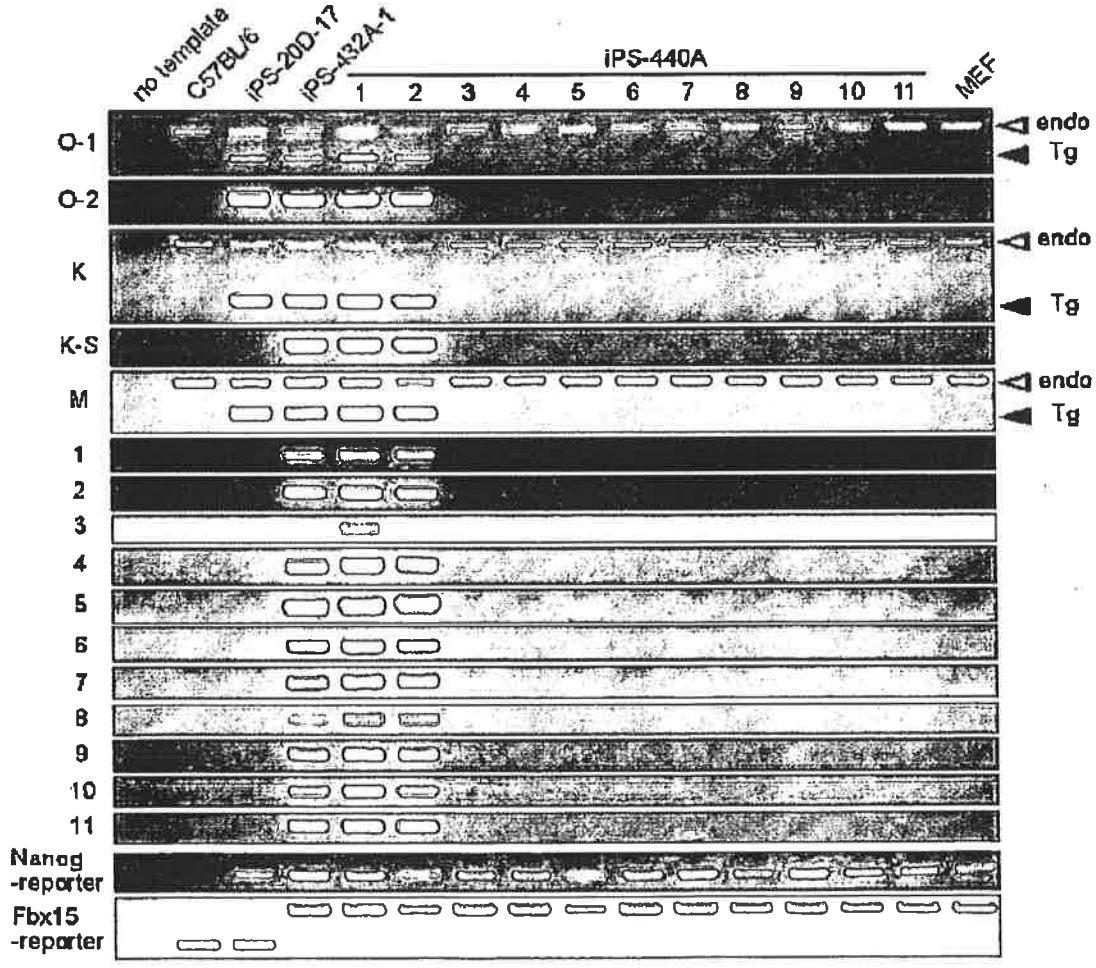
{Fig. 4}



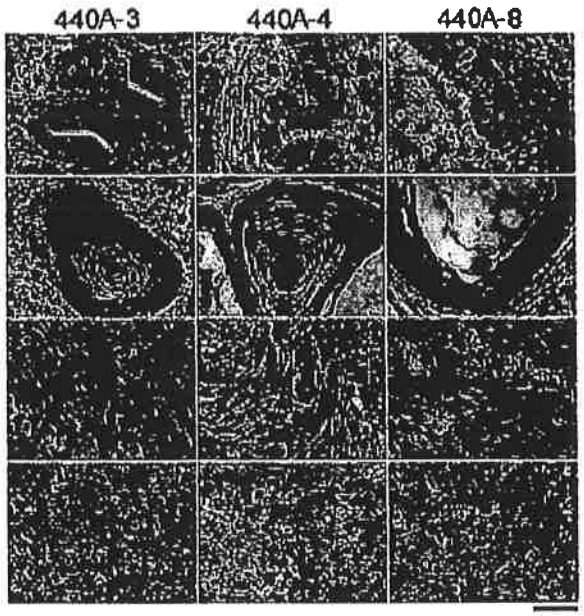
{Fig. 5}


no template
ES
iPS-20D-17
MEF
iPS-440A
3
4
7
8
10
11
iPS-432A-1
Nanog
ERas
ECAT1
Fbx15
Esg1
Rex1
Oct3/4
Sox2
Klf4
c-Myc
G3PDH
G3PDH (RT-)

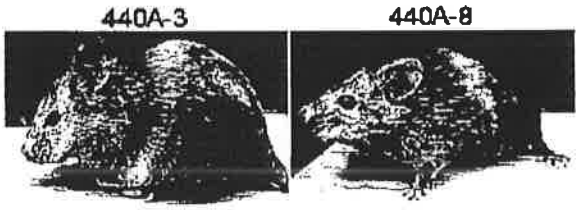
{Fig. 6}


no template
C57BL/6
iPS-20D-17
iPS-432A-1
iPS-440A
1
2
3
4
5
6
7
8
9
10
11
MEF
O-1
O-2
K
K-S
M
1
2
3
4
5
6
7
8
9
10
11
Nanog -reporter
Fbx15 -reporter
endo
Tg
endo
Tg
endo
Tg

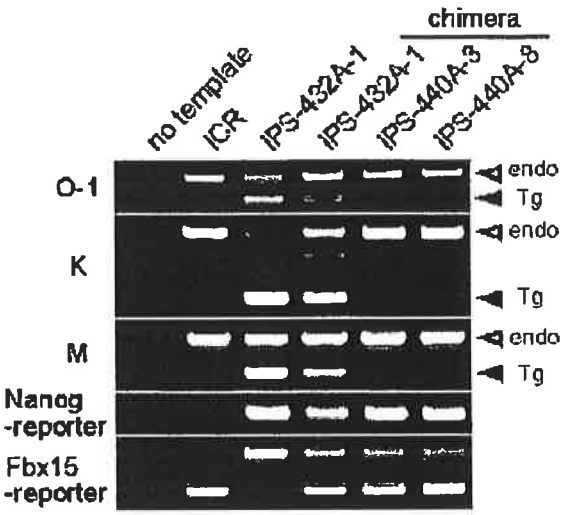
{Fig. 7}



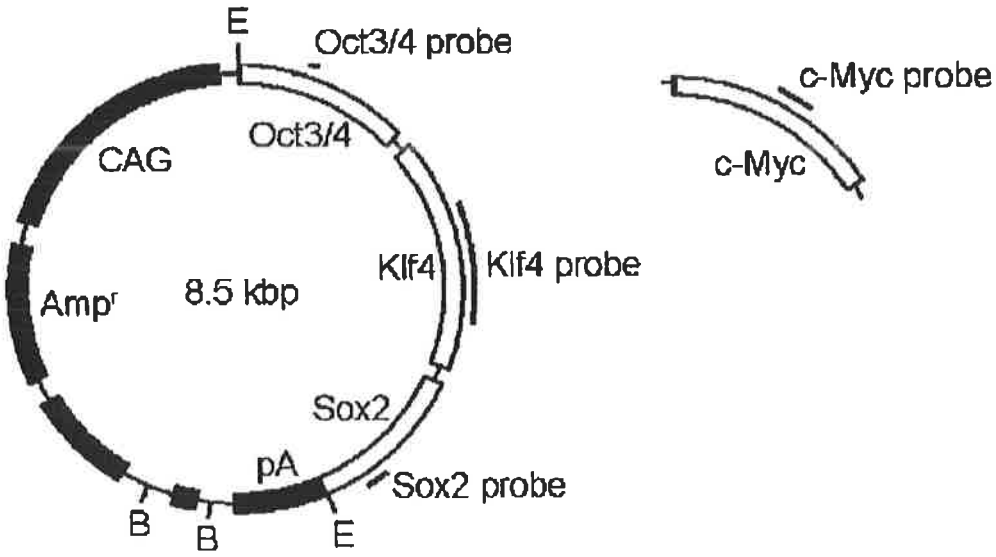
{Fig. 8}



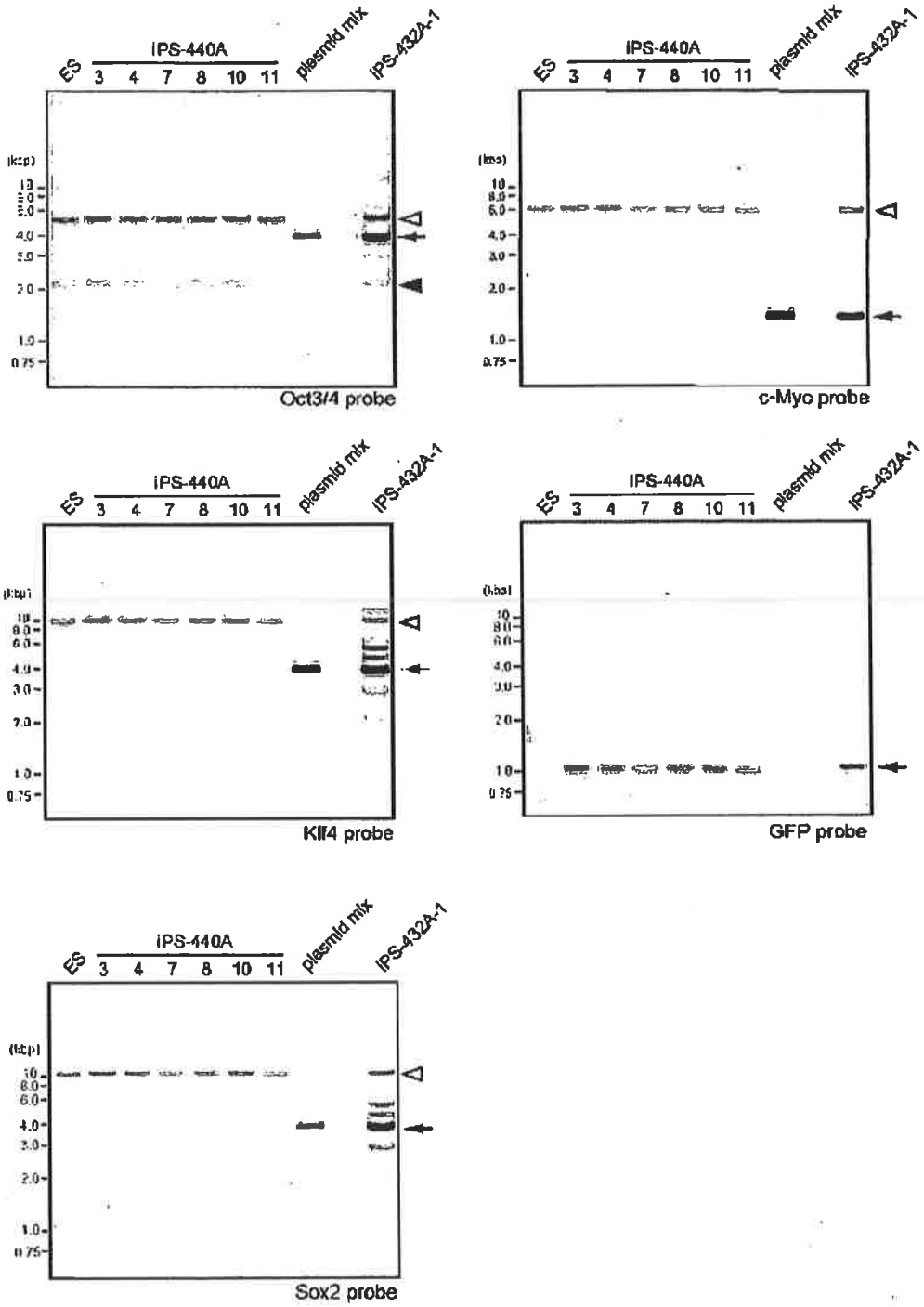
{Fig. 9}


chimera
no template
ICR
iPS-432A-1
iPS-432A-1
iPS-440A-3
iPS-440A-3
O-1
K
M
Nanog -reporter
Fbx15 -reporter
endo
Tg
endo
Tg
endo
Tg

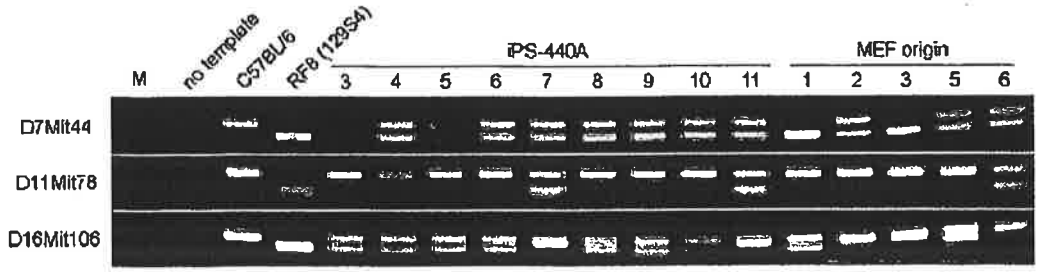
{Fig. 10}


E
Oct3/4 probe
c-Myc probe
Oct3/4
CAG
c-Myc
Klf4
Klf4 probe
Ampr
8.5 kbp
Sox2
pA
Sox2 probe
B
B
E

{Fig. 11}


ES
iPS-440A
3 4 7 8 10 11
plasmid mix
iPS-432A-1
(kbp)
Oct3/4 probe
c-Myc probe
Klf4 probe
GFP probe
Sox2 probe

{Fig. 12}


M
no template
C57BL/6
RF8 (129S4)
iPS-440A
3
4
5
6
7
8
9
10
11
MEF origin
1
2
3
5
6
D7Mit44
D11Mit78
D16Mit106

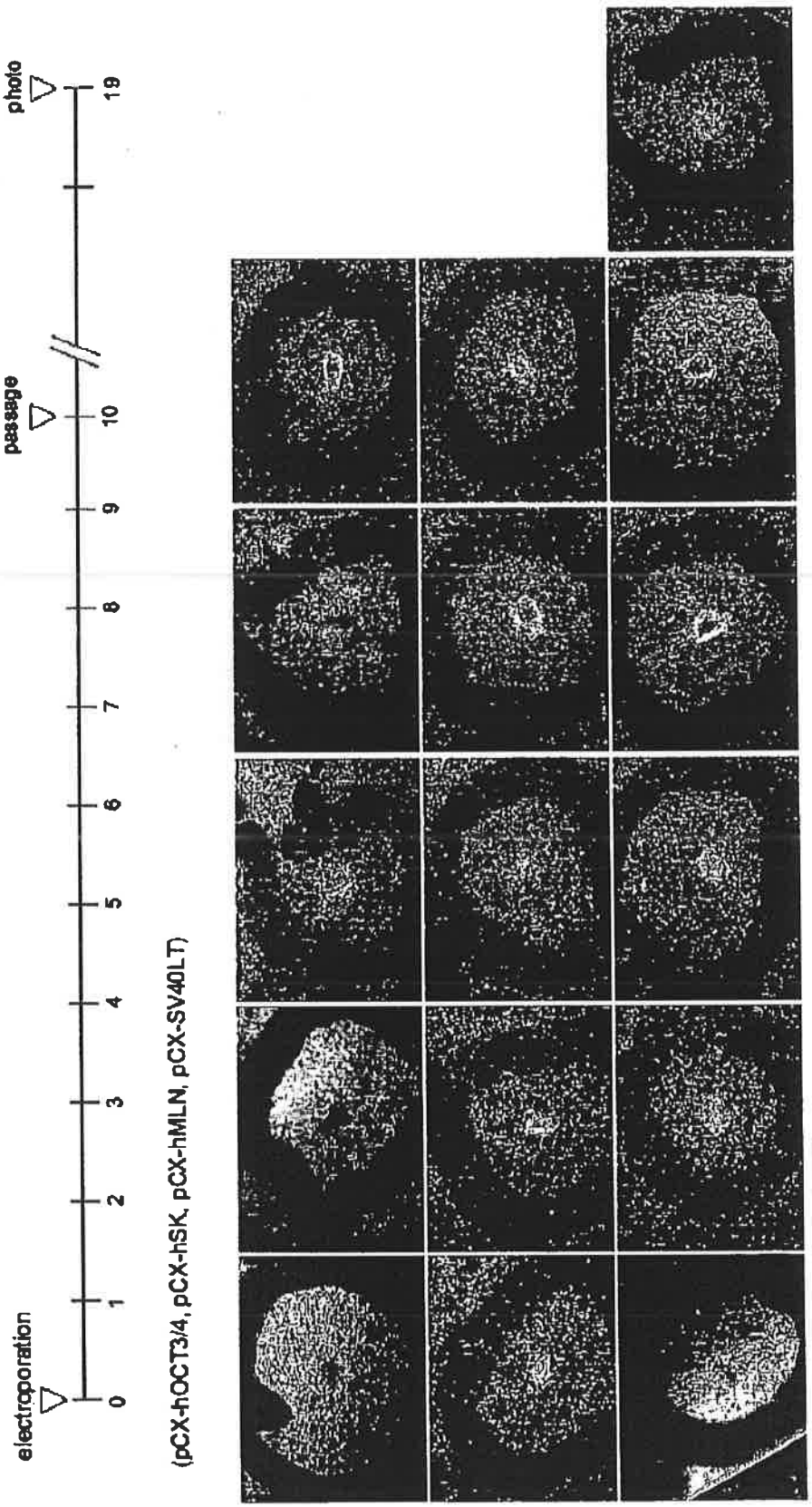
{Fig. 13}

Regions	sequences
G3PDH	ACC ACA GTC CAT GCC ATC AC
	TCC ACC ACC CTG TTG CTG TA
Nanog	AGG GTC TGC TAC TGA GAT GCT
	CAA CAC CTG GTT TTT CTG CCA CCG
Rex1	ACGAGTGGCAGTTTCTTCTTGGGA
	TATGACTCACTTCCAGGGGGCACT
ECAT1	TGT GGG GCC CTG AAA GGC GAG CTG AGA T
	ATG GGC CGC CAT ACG ACG ACG CTC AAC T
ERas	ACT GCC CCT CAT CAG ACT GCT ACT
	CAC TGC CTT GTA CTC GGG TAG CTG
Fbx15	GTT GGA ATC TGC TTC TAC AG
	CTT CAC CAA GAT TTC CGA TG
Esg1	GAA GTC TGG TTC CTT GGC AGG ATG
	ACT CGA TAC ACT GGC CTA GC
Oct3/4	CTG AGG GCC AGG CAG GAG CAC GAG
	CTG TAG GGA GGG CTT CGG GCA CTT
Sox2	GGT TAC CTC TTC CTC CCA CTC CAG
	TCA CAT GTG CGA CAG GGG CAG
Klf4	CAC CAT GGA CCC GGG CGT GGC TGC CAG AAA
	TTA GGC TGT TCT TTT CCG GGG CCA CGA
c-Myc	CAG AGG AGG AAC GAG CTG AAG CGC
	TTA TGC ACC AGA GTT TCG AAG CTG TTC G
O-1	CGG AAT TCA AGG AGC TAG AAC AGT TTG CC
	CTG AAG GTT CTC ATT GTT GTC G
O-2	GAT CAC TCA CAT CGC CAA TC
	CTG GGA AAG GTG TCC TGT AGC C
K	GCG GGA AGG GAG AAG ACA CTG CGT C
	TAG GAG GGC CGG GTT GTT ACT GCT
K-S	CCT TAC ACA TGA AGA GGC ACT TT
	CAG CTC CGT CTC CAT CAT GTT AT
M	ACA CTC CCC CAA CAC CAG GAC GTT T
	GCT CGC CCA AAT CCT GTA CCT CGT CCG AT
	GAG ATG AGC CCG ACT CCG ACC TCT T
1	AGG TGC AGG CTG CCT ATC
	TTA GCC AGA AGT CAG ATG CTC
2	TGG CGT AAT CAT GGT CAT AG
	GCA ACG CAA TTA ATG TGA GTT AG
3	CTG GAT CCG CTG CAT TAA TGA
	CCG AGC GCA GCG AGT CA

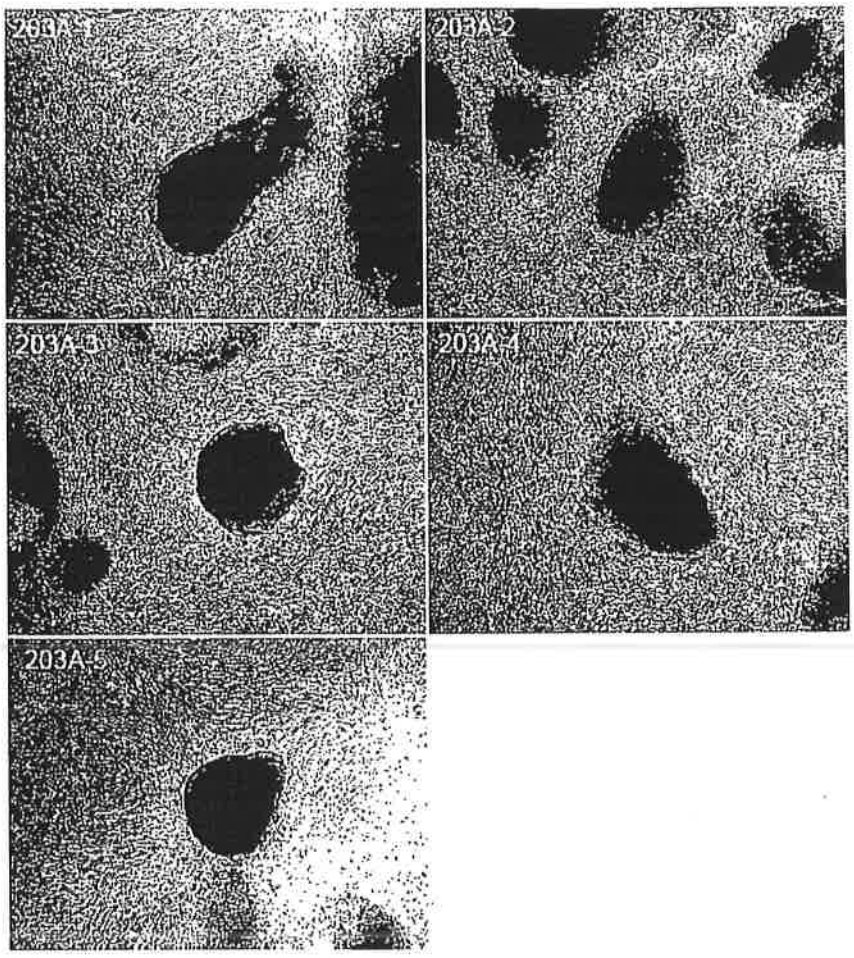
{Fig. 14}

Regions	Sequences
4	GCC TTA TCC GGT AAC TAT CGT
	GCA CCG CCT ACA TAC CTC
5	AGT TGC CTG ACT CCC CGT CGT G
	GGA GCC GGT GAG CGT GGG TC
6	CCG ATC GTT GTC AGA AGT AAG TTG
	TCA CAG AAA AGC ATC TTA CGG A
7	GAA AAG TGC CAC CTG GTC GAC ATT
	GGG CCA TTT ACC GTA AGT TAT GTA
8	TAT CAT ATG CCA AGT ACG C
	TAG ATG TAC TGC CAA GTA GGA A
9	TCT GAC TGA CCG CGT TAC T
	AGA AAA GAA ACG AGC CGT CAT T
10	GGG GGC TGC GAG GGG AAC AAA
	GCC GGG CCG TGC TCA GCA ACT
11	GCG AGC CGC AGC CAT TGC CTT TTA
	CCC AGA TTT CGG CTC CGC CAG AT
Nanog-reporter	TGG GAT CCC TAT GCT ACT CCG TCG AAG TTC
	CTA GGC AAA CTG TGG GGA CCA GGA AGA C
Fbx15-reporter	TGG TCC AAC ATC TTA TAC ACA GTA ATG A
	GTG GAA CTC CCT TCT AGC CCT CTA TCC C
	AAT GGG CTG ACC GCT TCC TCG TGC TT

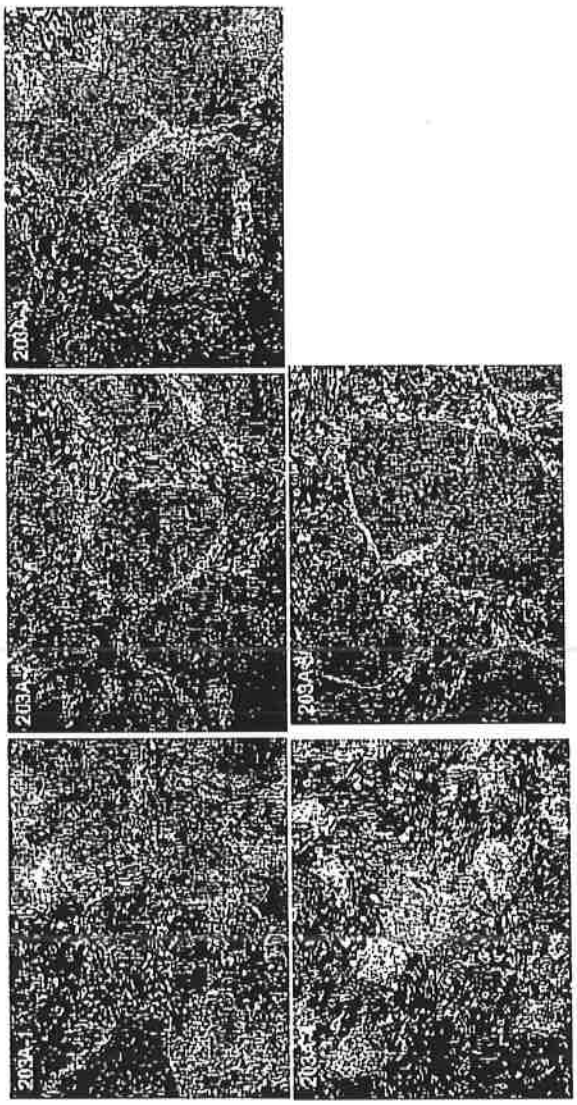
{Fig. 15}


electroporation
0
1
2
3
4
5
6
7
8
9
passage
10
photo
19
(pCX-hOCT3/4, pCX-hSK, pCX-hMLN, pCX-SV40LT)

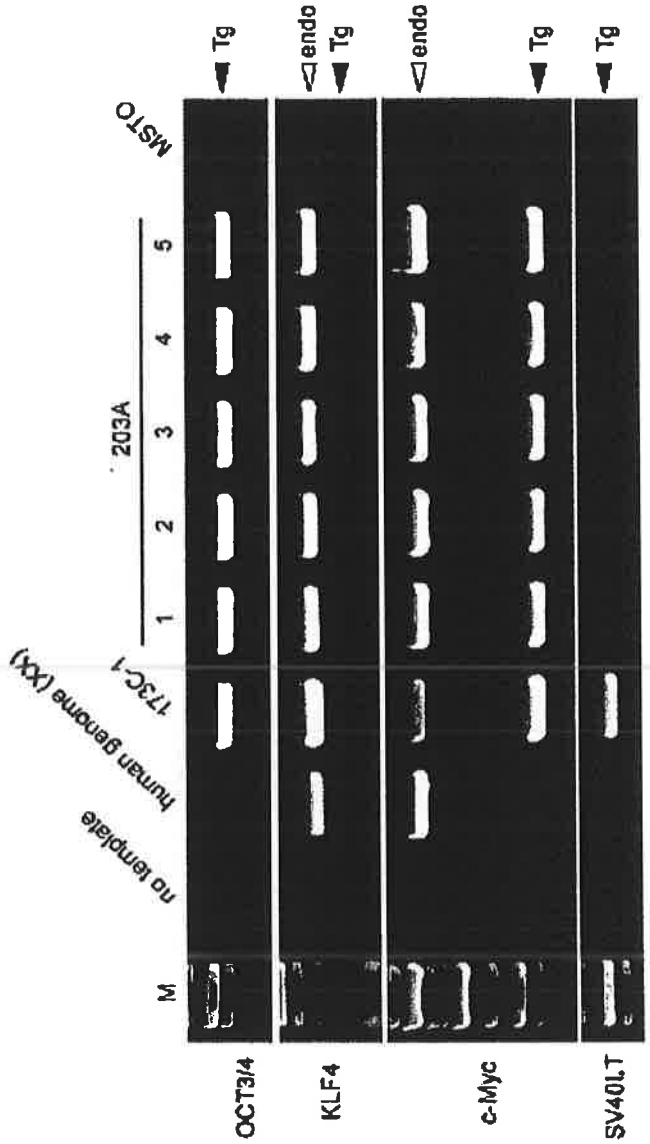
{Fig. 16}



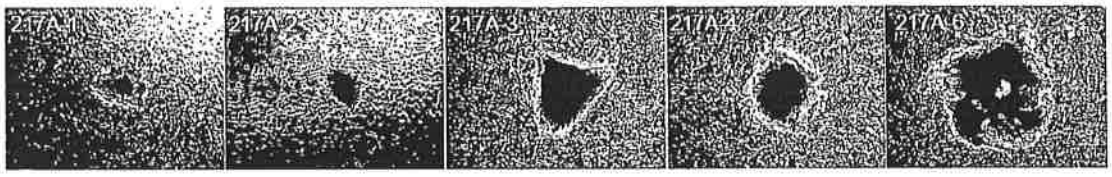
{Fig. 17}



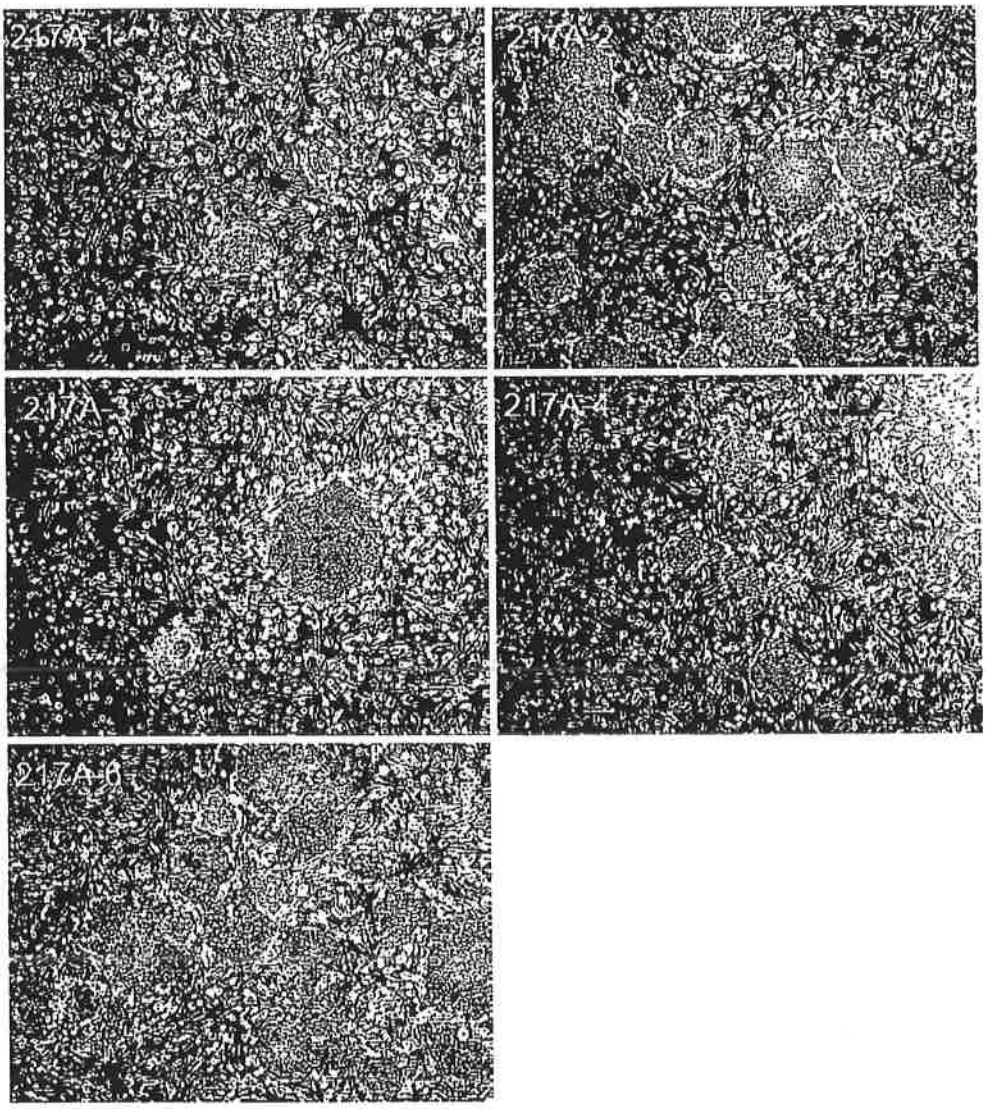
{Fig. 18}


Tg
endo
Tg
endo
Tg
Tg
MSTO
203A
1
2
3
4
5
17JC-1
human genome (XX)
no template
M
OCT3/4
KLF4
c-Myc
SV40LT

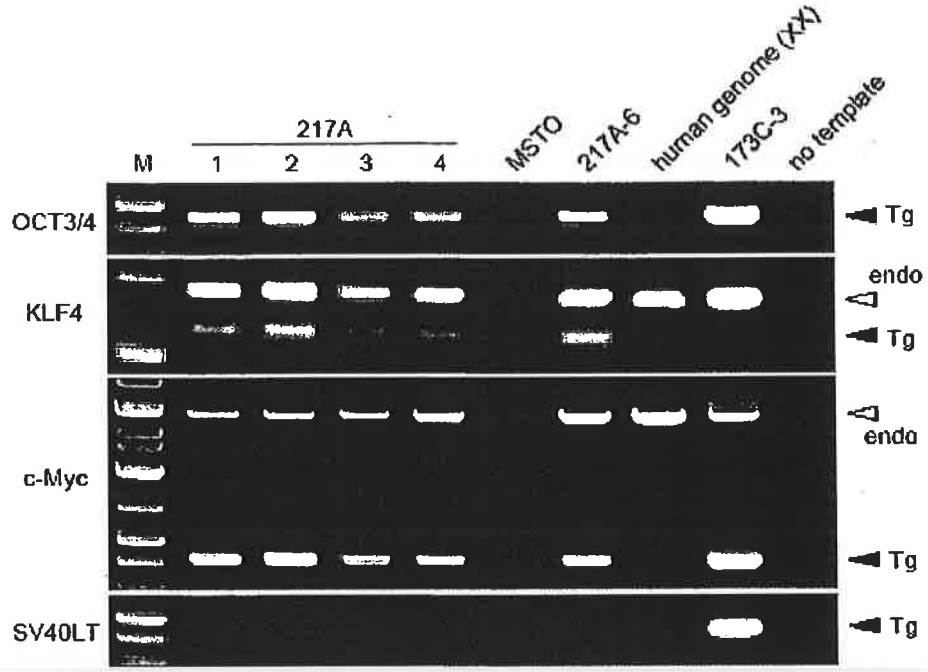
{Fig. 19}


217A-1
217A-2
217A-3
217A-4
217A-5

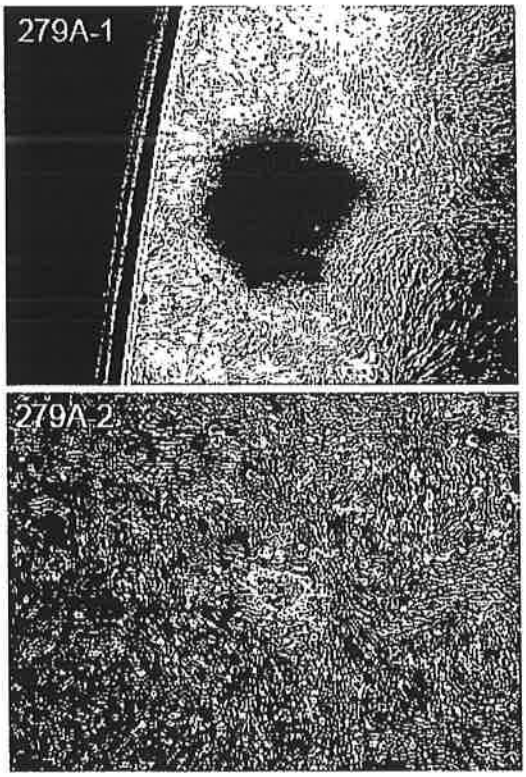
{Fig. 20}



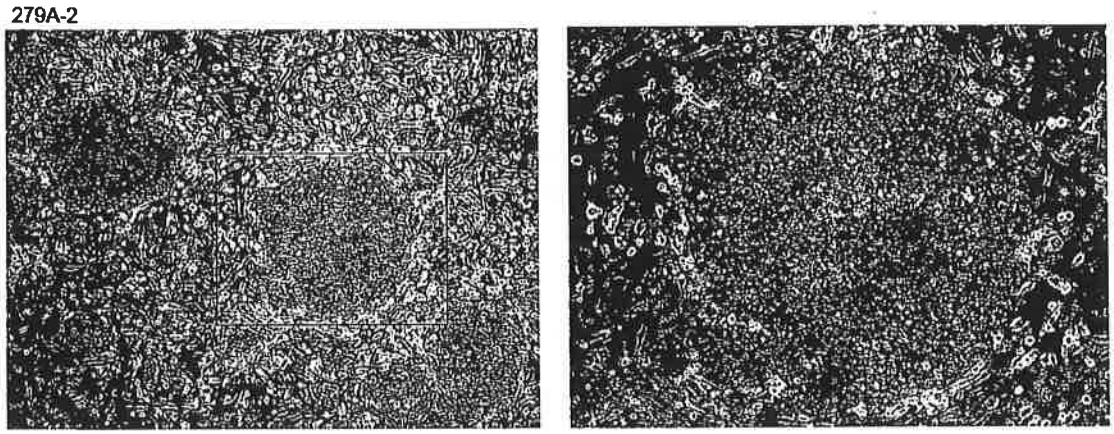
{Fig. 21}


M
217A
1
2
3
4
MSTO
217A-6
human genome (XX)
173C-3
no template
OCT3/4
KLF4
c-Myc
SV40LT
Tg
endo
Tg
endo
Tg
Tg

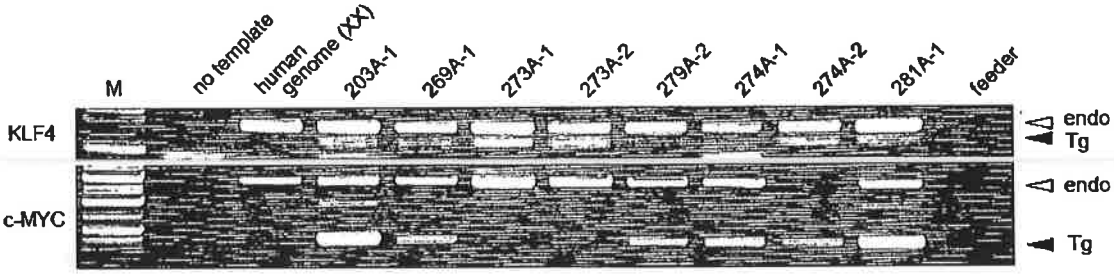
{Fig. 22}


279A-1
279A-2

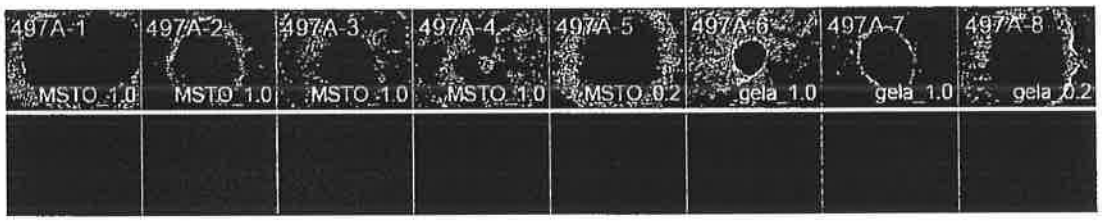
{Fig. 23}



{Fig. 24}



{Fig. 25}



{Fig. 26}

