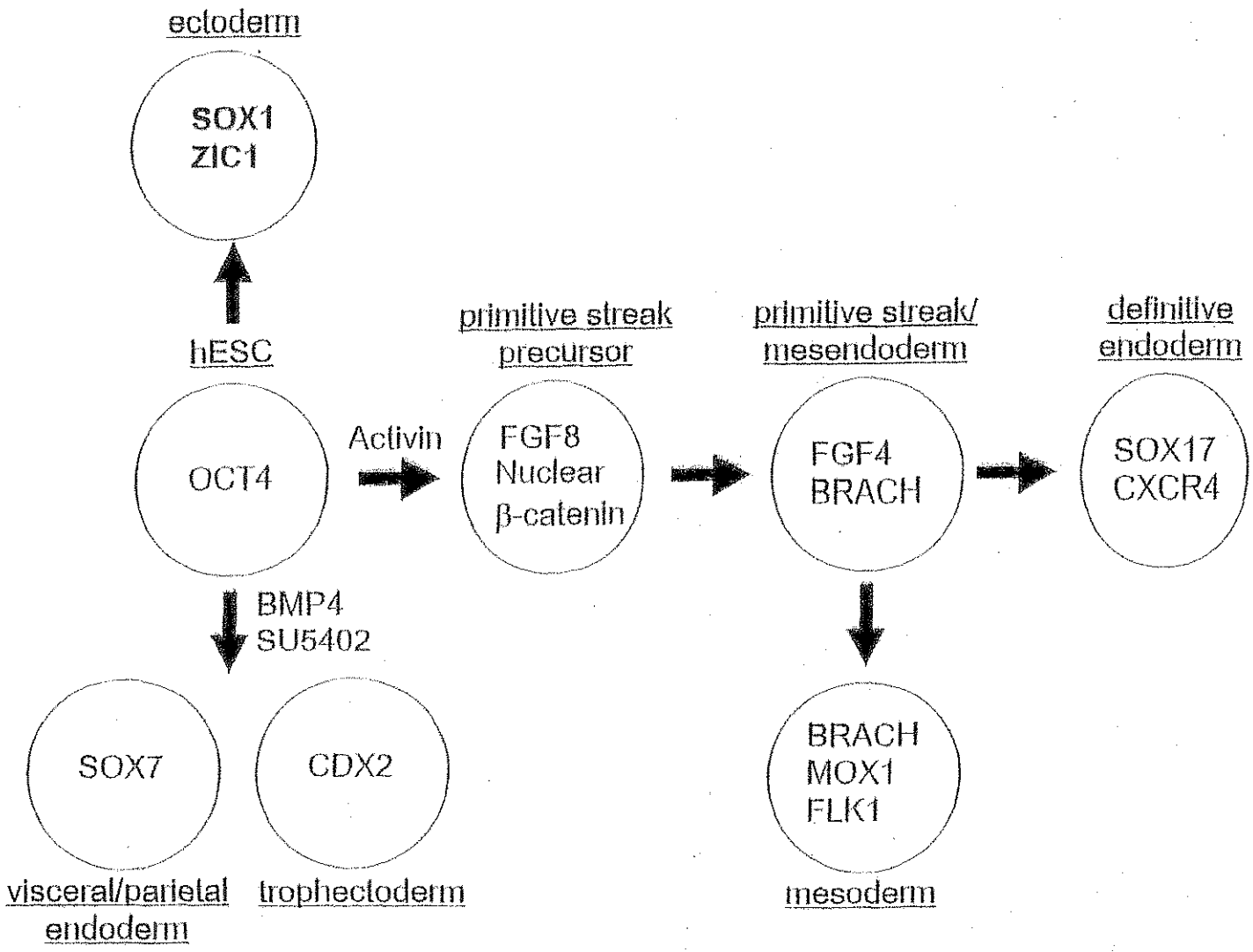

ectoderm
SOX1
ZIC1
hESC
OCT4
Activin
primitive streak
precursor
FGF8
Nuclear
β-catenin
primitive streak/
mesendoderm
FGF4
BRACH
definitive
endoderm
SOX17
CXCR4
BMP4
SU5402
SOX7
CDX2
BRACH
MOX1
FLK1
visceral/parietal
endoderm
trophectoderm
mesoderm

Figure 1

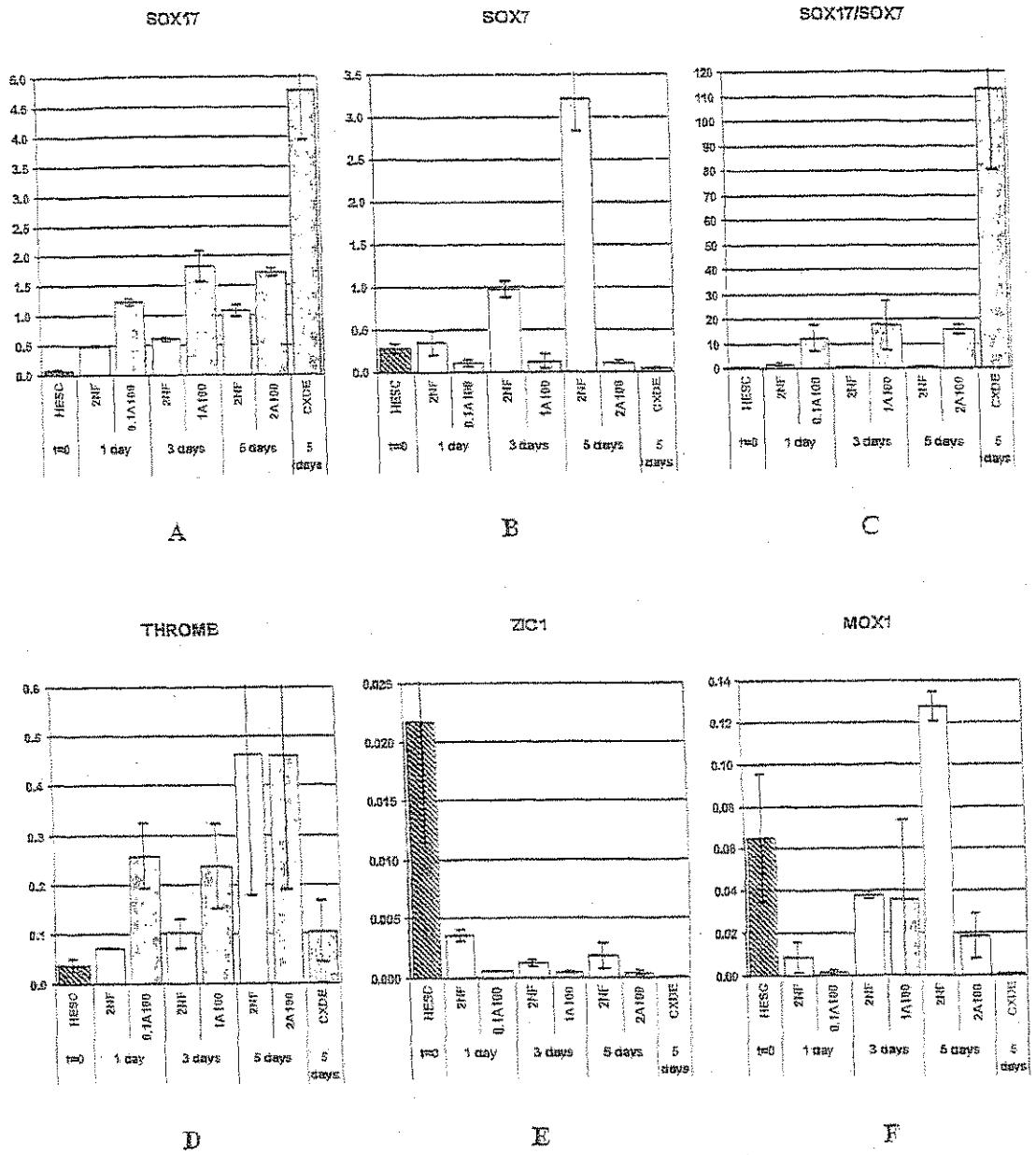

SOX17
SOX7
SOX17/SOX7
HESC
2NF
0.1A100
1A100
2A100
CXDE
t=0
1 day
3 days
5 days
5 days
A
B
C
THROMB
ZIC1
MOX1
D
E
F

Figure 2

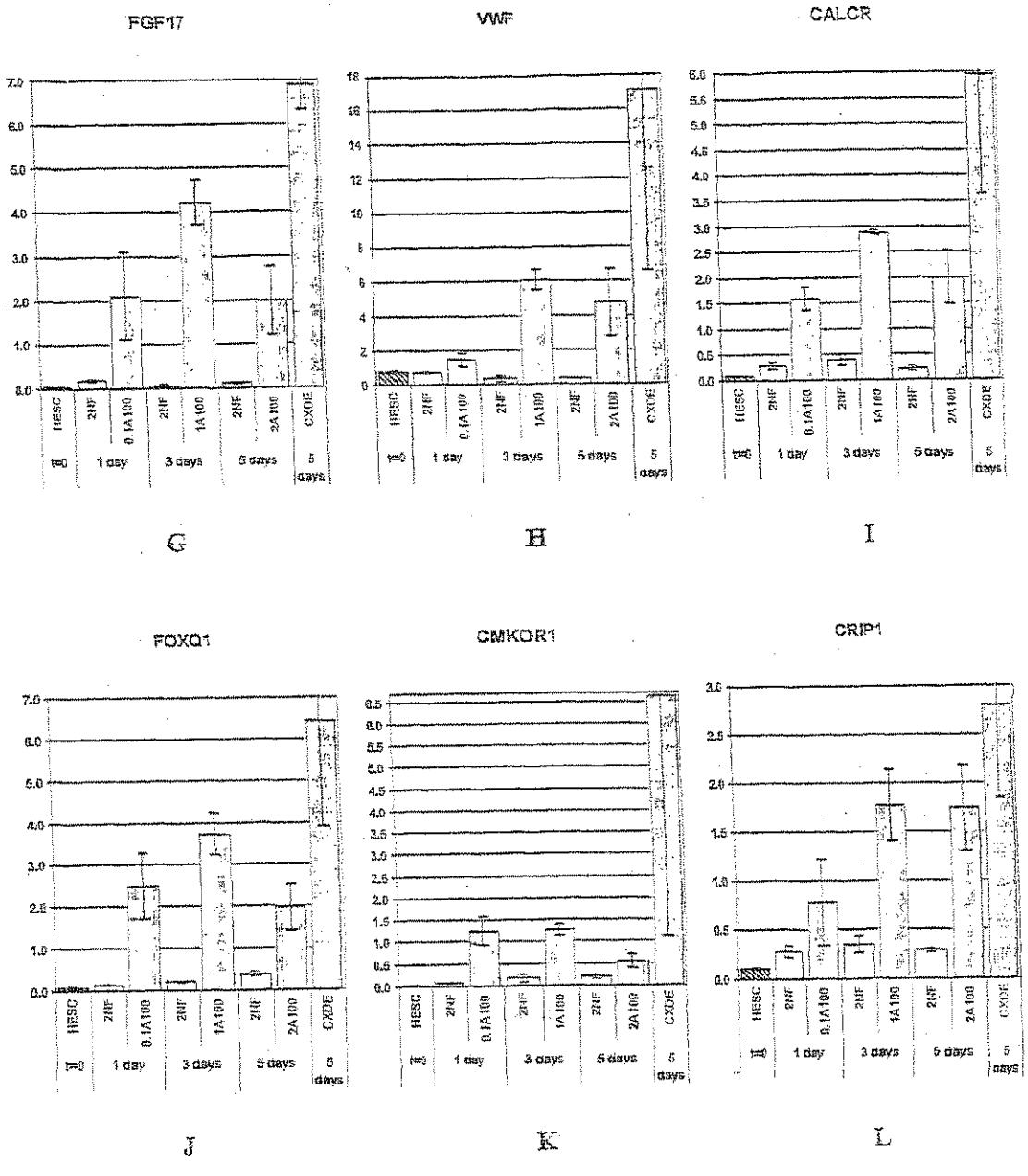
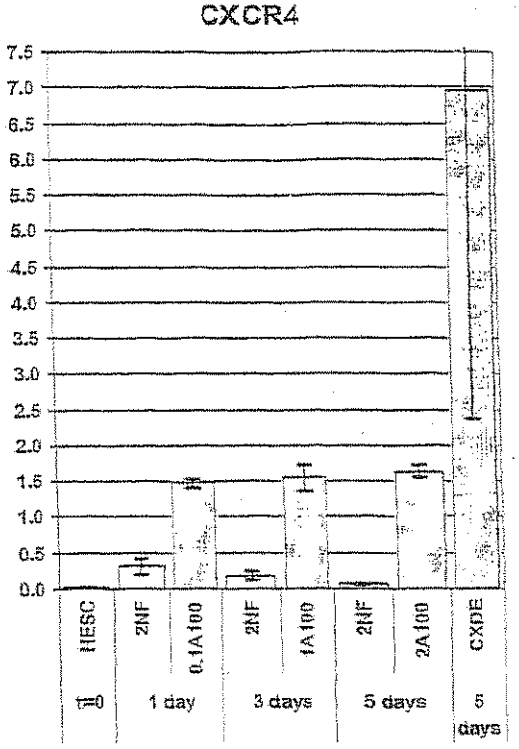

FGF17
VWF
CALCR
HESC
2NF
0.1A100
1A100
2A100
CXDE
t=0
1 day
3 days
5 days
5 days
G
H
I
FOXQ1
CMKOR1
CRIP1
J
K
L

Figure 2


CXCR4
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
hESC
2NF
0.1A100
2NF
1A100
2NF
2A100
CXDE
T=0
1 day
3 days
5 days
5 days

M

Figure 2

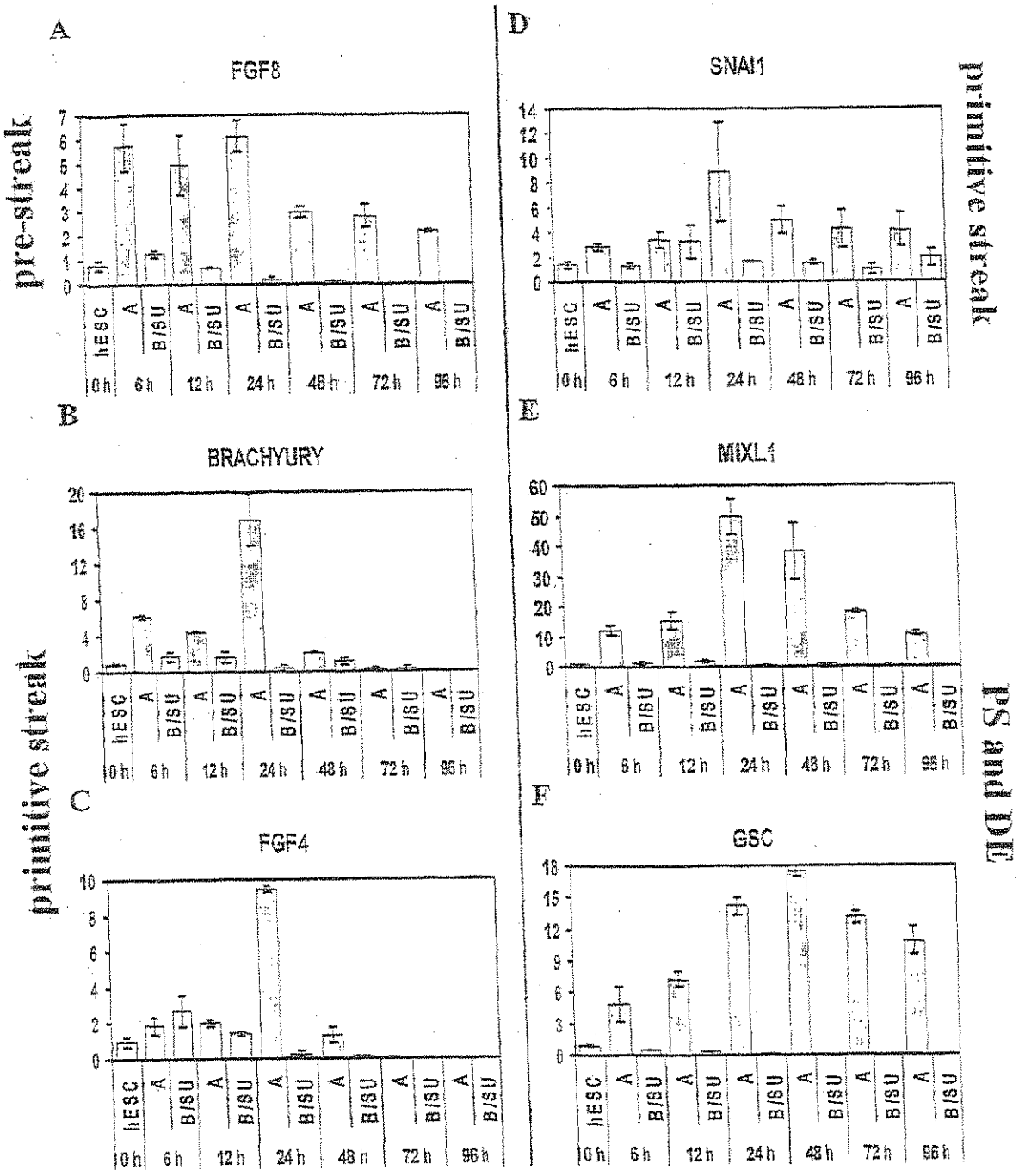

A
FGF8
pre-streak
B
BRACHYURY
primitive streak
C
FGF4
D
SNAI1
primitive streak
E
MIXL1
F
GSC
PS and DE
hESC
A
B/SU
0 h
6 h
12 h
24 h
48 h
72 h
96 h

Figure 3

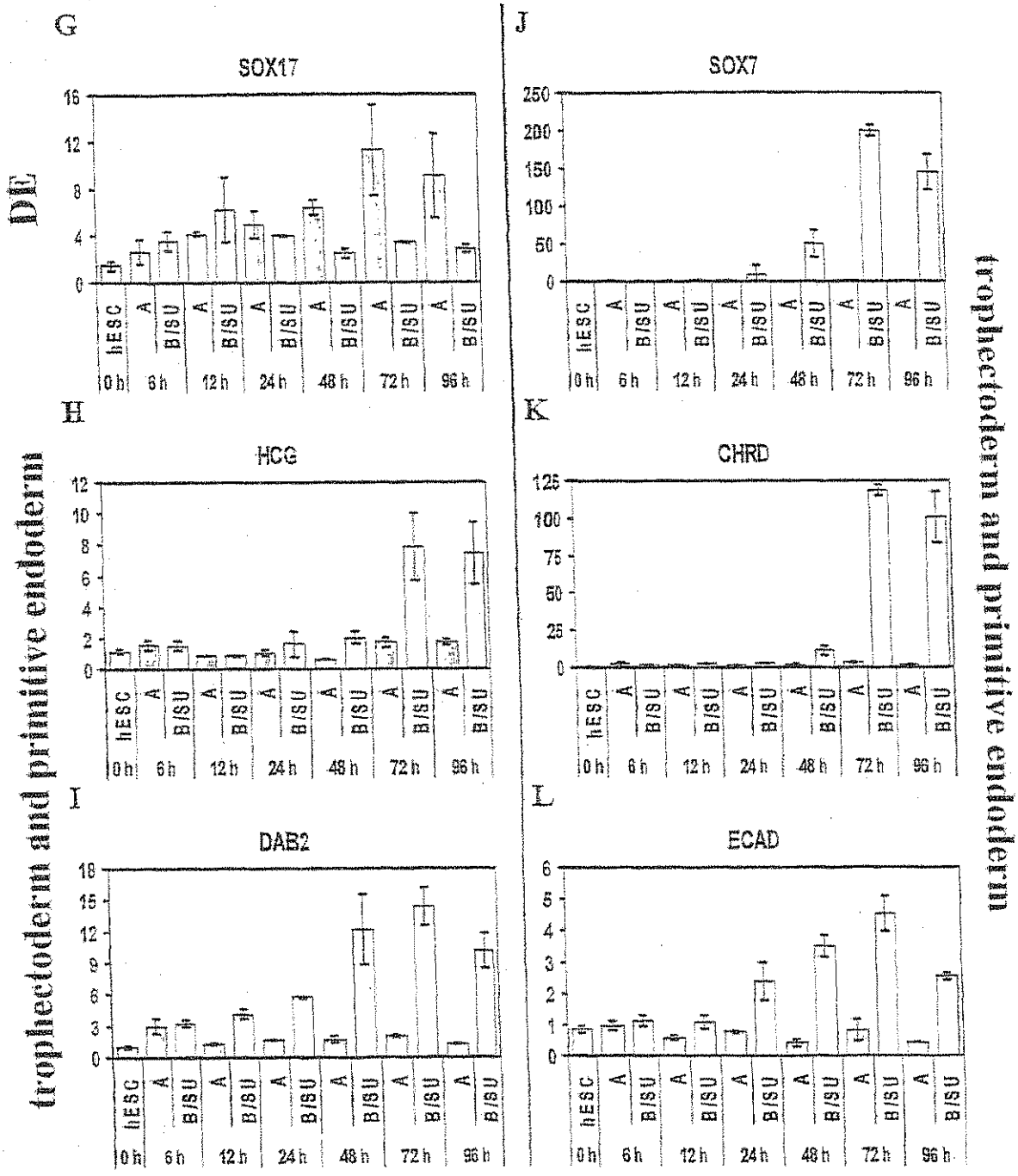
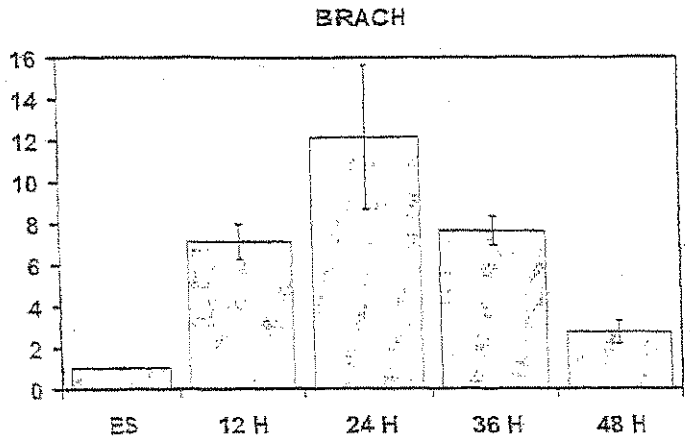
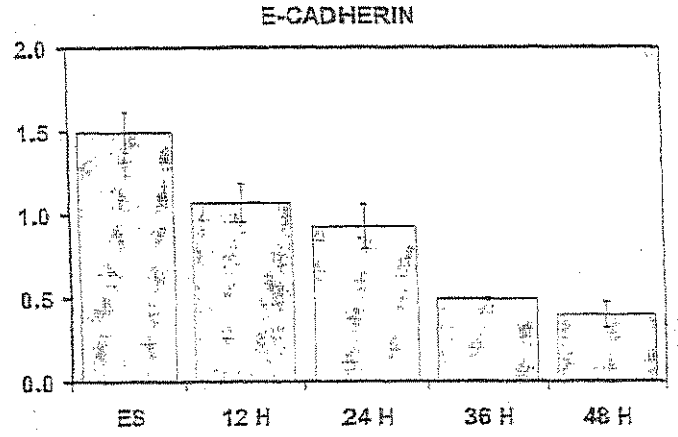

DE
trophectoderm and primitive endoderm
G
SOX17
H
HCG
I
DAB2
J
SOX7
K
CHRD
L
ECAD
hESC
A
B/SU
0 h
6 h
12 h
24 h
48 h
72 h
96 h

Figure 3

A


BRACH
16
14
12
10
8
6
4
2
0
ES
12 H
24 H
36 H
48 H

B


E-CADHERIN
2.0
1.5
1.0
0.5
0.0
ES
12 H
24 H
36 H
48 H

C

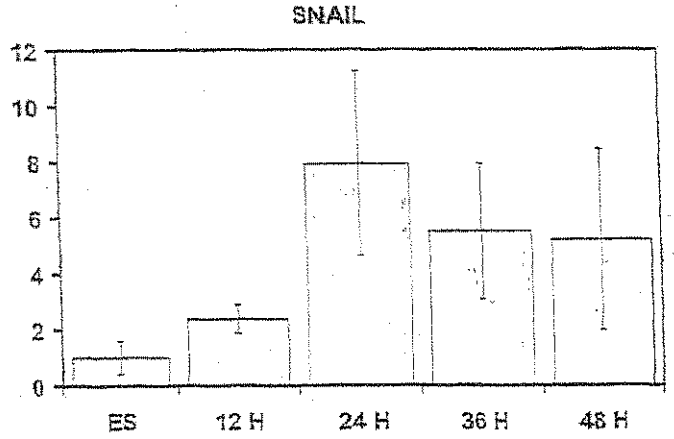
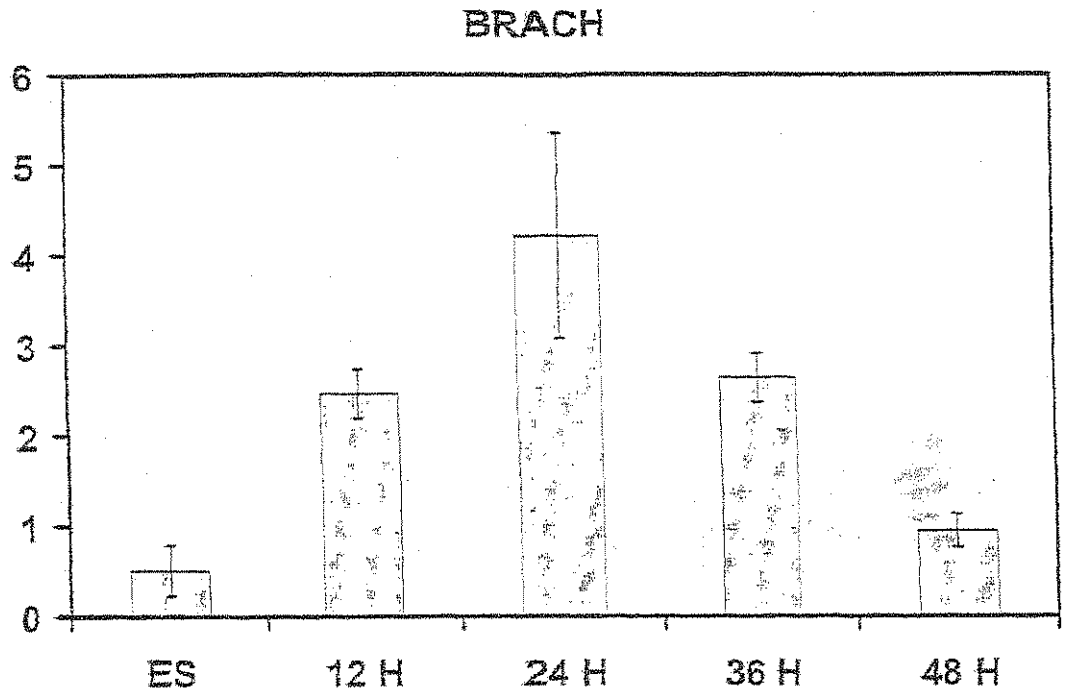

SNAIL
12
10
8
6
4
2
0
ES
12 H
24 H
36 H
48 H

Figure 4

A


BRACH
6
5
4
3
2
1
0
ES
12 H
24 H
36 H
48 H

B

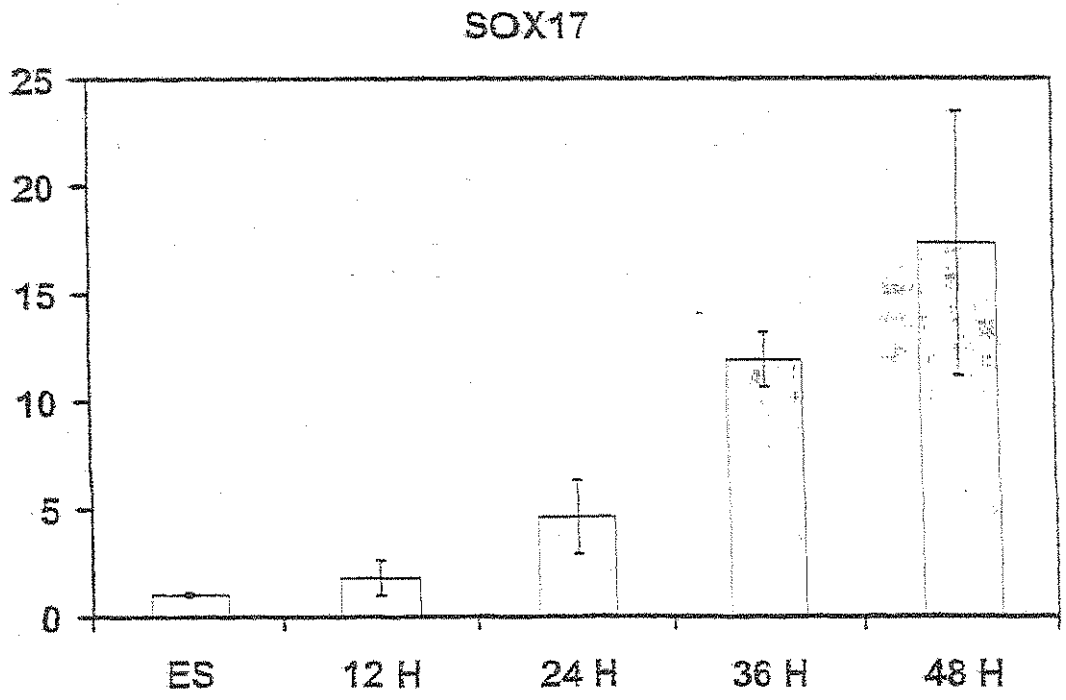

SOX17
25
20
15
10
5
0
ES
12 H
24 H
36 H
48 H

Figure 5

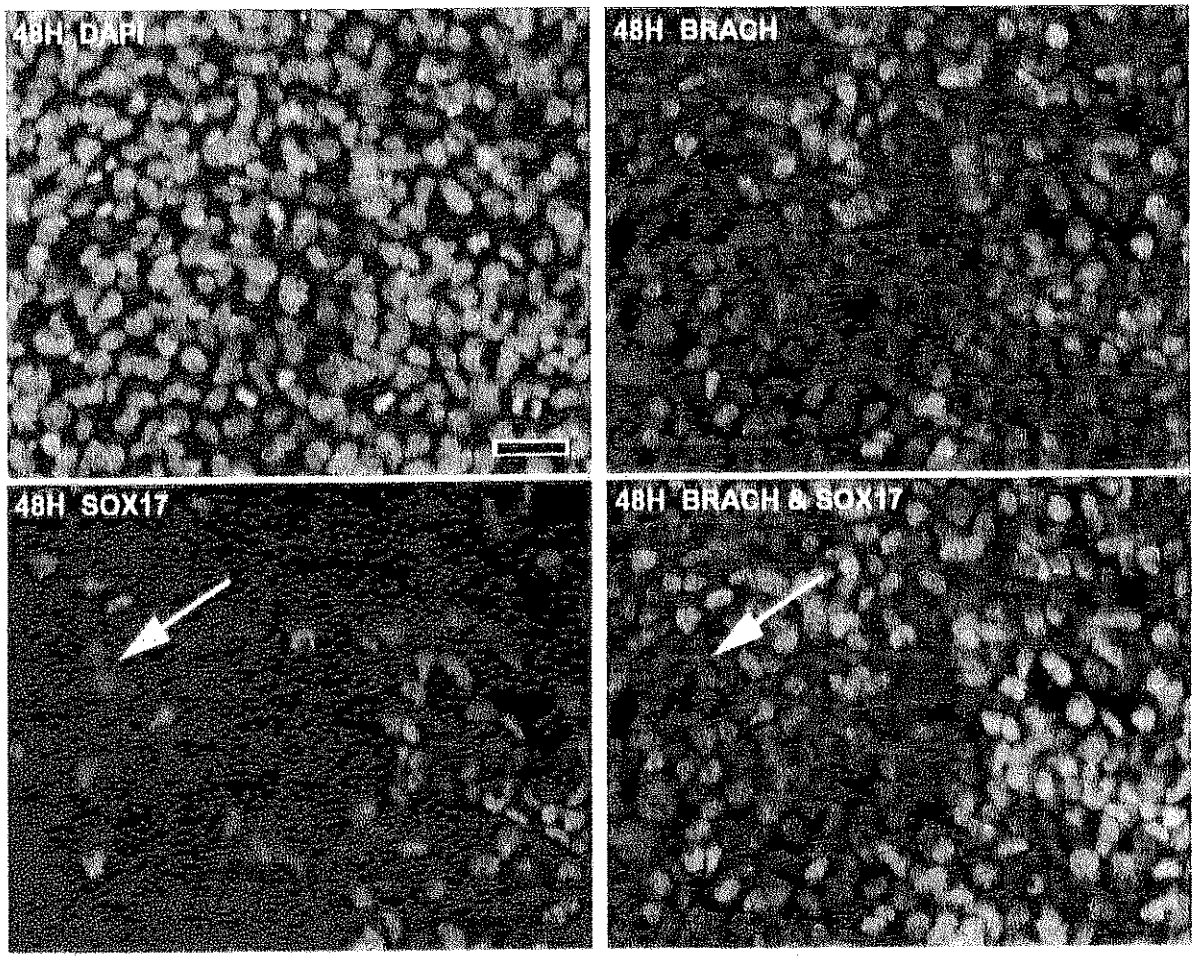


Figure 6

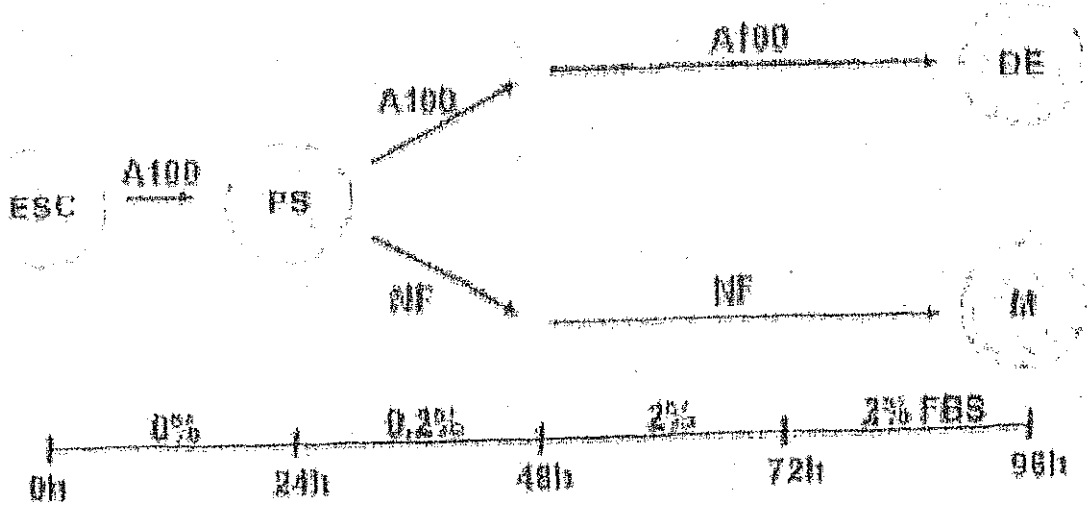


Figure 7

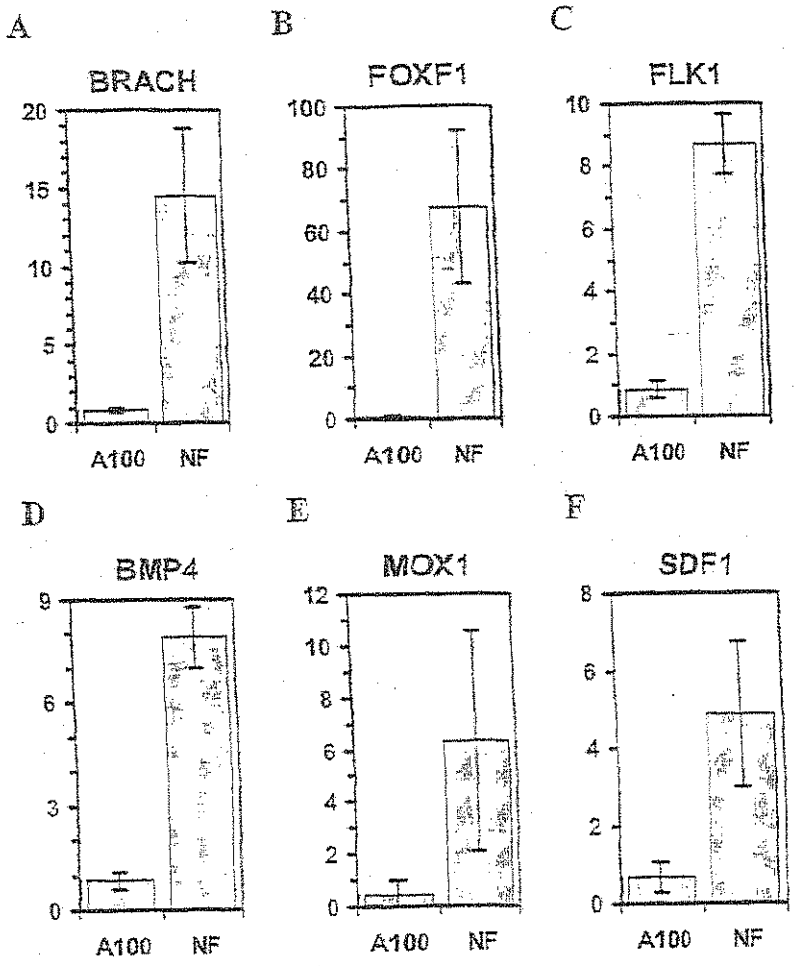

A
BRACH
20
15
10
5
0
A100
NF
B
FOXF1
100
80
60
40
20
0
A100
NF
C
FLK1
10
8
6
4
2
0
A100
NF
D
BMP4
9
6
3
0
A100
NF
E
MOX1
12
10
8
6
4
2
0
A100
NF
F
SDF1
8
6
4
2
0
A100
NF

Figure 8

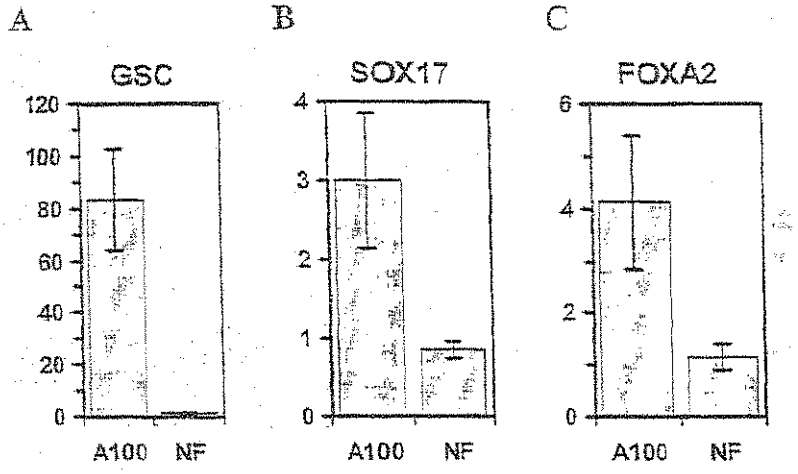

A
GSC
120
100
80
60
40
20
0
A100
NF
B
SOX17
4
3
2
1
0
A100
NF
C
FOXA2
6
4
2
0
A100
NF

Figure 9

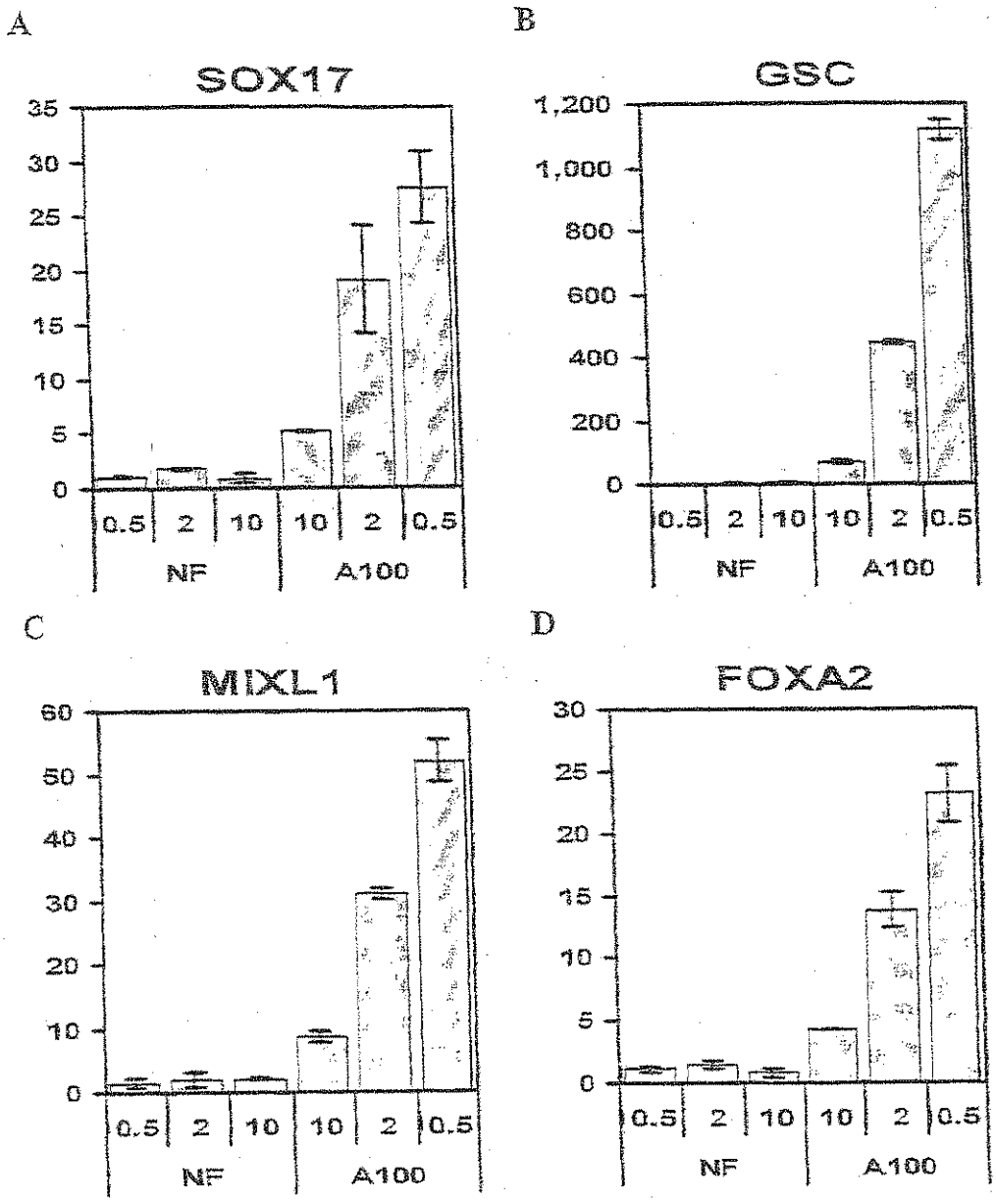

A
SOX17
35
30
25
20
15
10
5
0
0.5
2
10
10
2
0.5
NF
A100
B
GSC
1,200
1,000
800
600
400
200
0
0.5
2
10
10
2
0.5
NF
A100
C
MIXL1
60
50
40
30
20
10
0
0.5
2
10
10
2
0.5
NF
A100
D
FOXA2
30
25
20
15
10
5
0
0.5
2
10
10
2
0.5
NF
A100

Figure 10

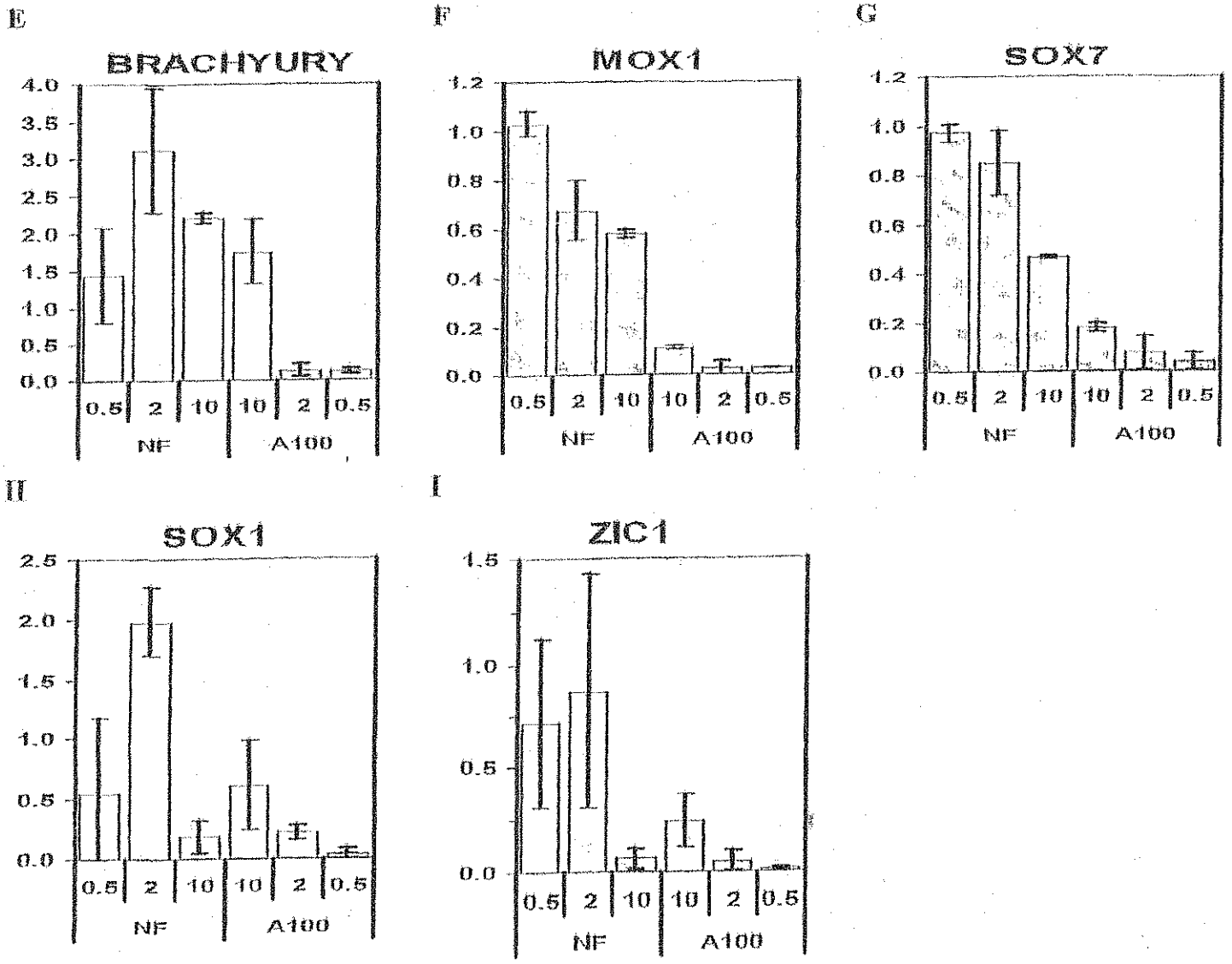

E
BRACHYURY
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0.5 2 10 10 2 0.5
NF
A100
F
MOX1
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0.5 2 10 10 2 0.5
NF
A100
G
SOX7
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0.5 2 10 10 2 0.5
NF
A100
H
SOX1
2.5
2.0
1.5
1.0
0.5
0.0
0.5 2 10 10 2 0.5
NF
A100
I
ZIC1
1.5
1.0
0.5
0.0
0.5 2 10 10 2 0.5
NF
A100

Figure 10

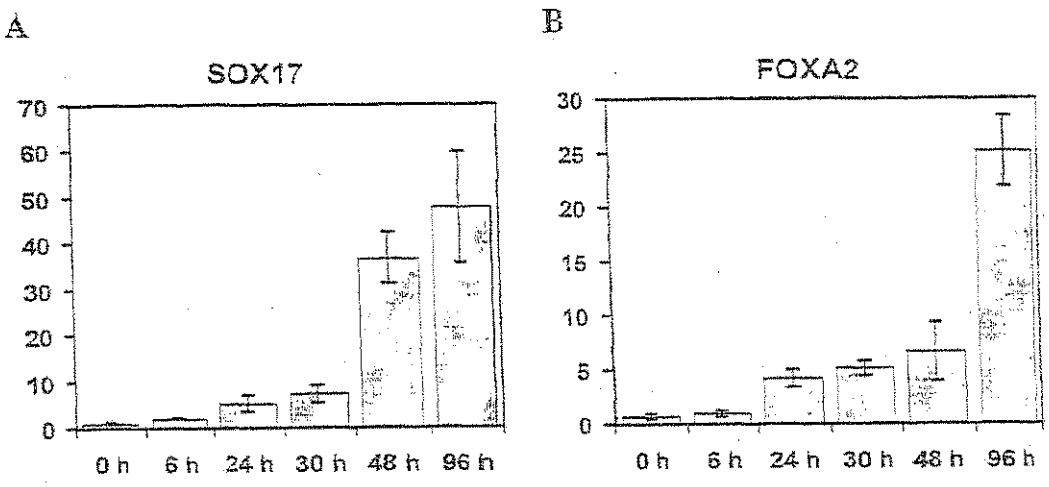

A
SOX17
70
60
50
40
30
20
10
0
0 h
6 h
24 h
30 h
48 h
96 h
B
FOXA2
30
25
20
15
10
5
0
0 h
6 h
24 h
30 h
48 h
96 h

Figure 11

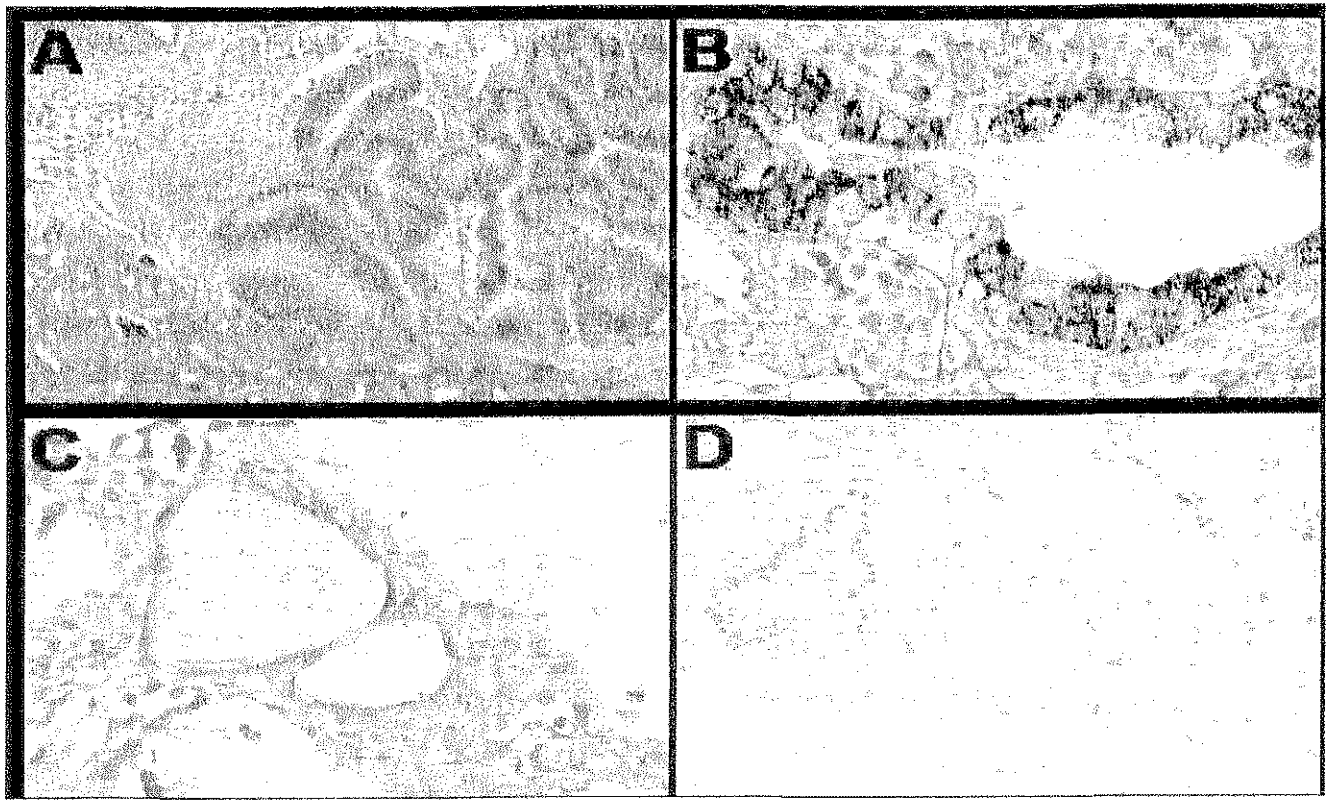


Figure 12