FIG. 1A

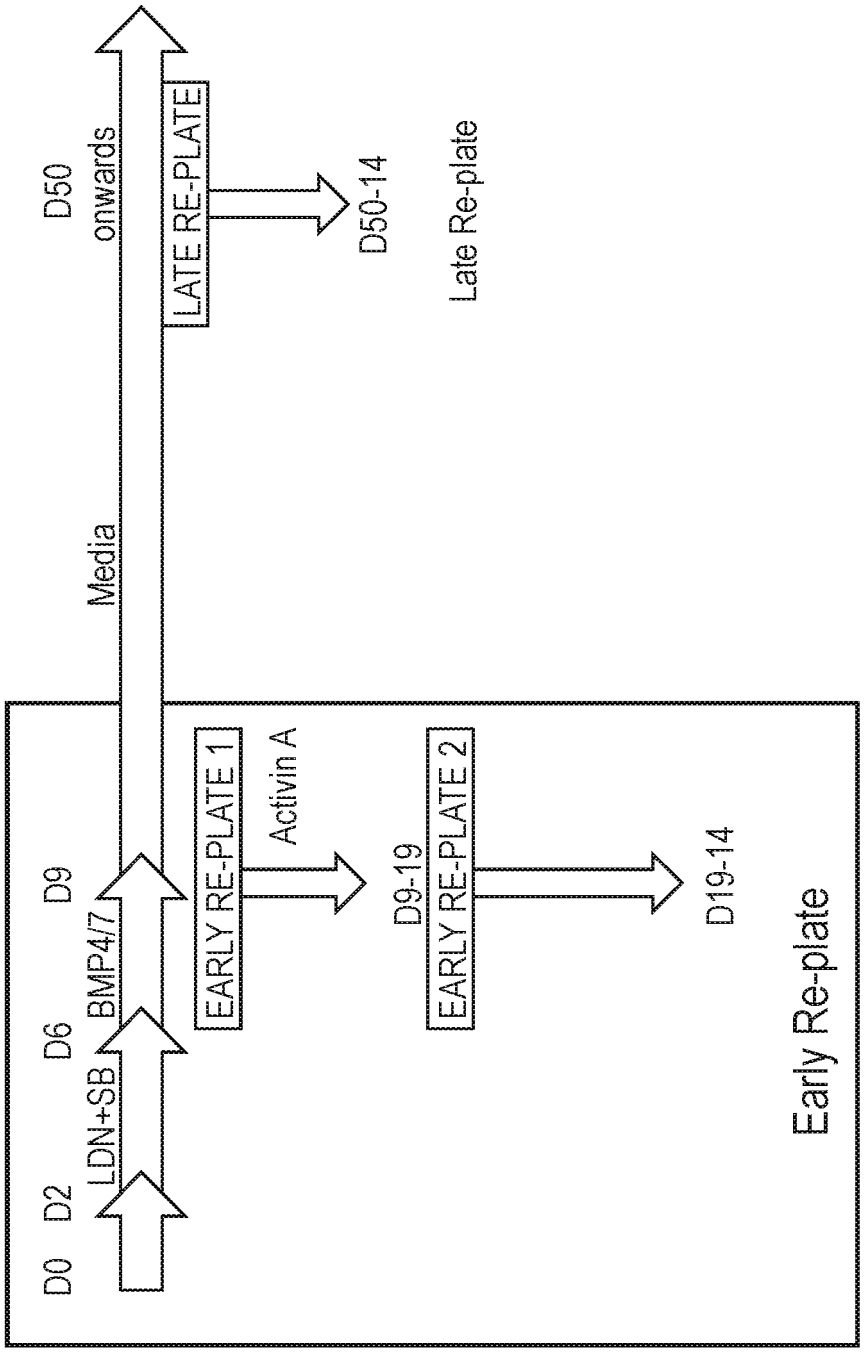

D0
D2
LDN+SB
D6
BMP4/7
D9
Media
D50
onwards
EARLY RE-PLATE 1
Activin A
D9-19
EARLY RE-PLATE 2
D19-14
Early Re-plate
LATE RE-PLATE
D50-14
Late Re-plate

FIG. 1B

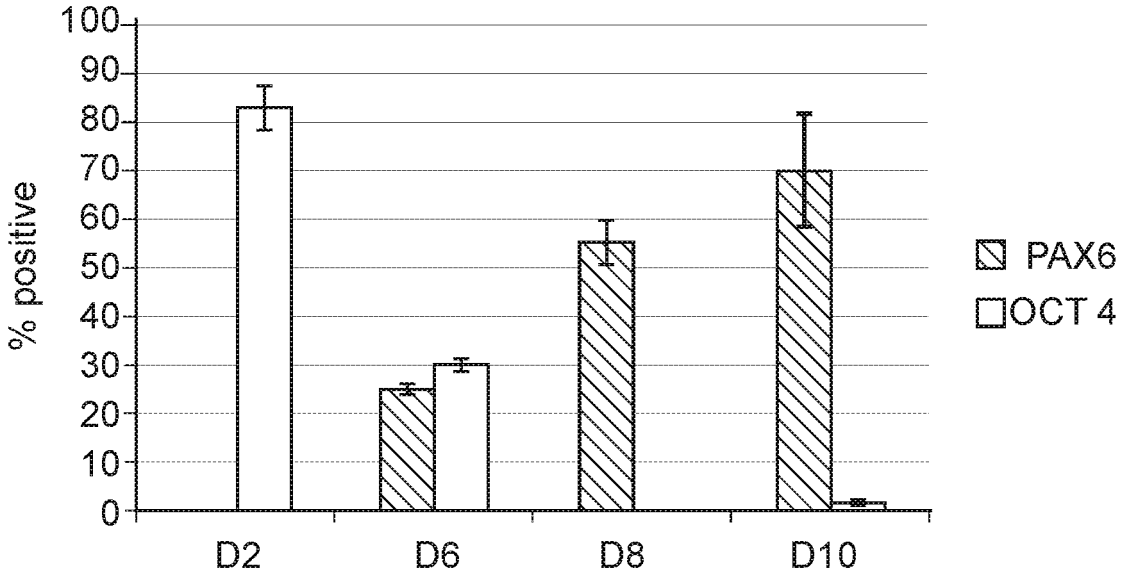

100
90
80
70
60
50
40
30
20
10
0
% positive
D2
D6
D8
D10
PAX6
OCT 4

FIG. 1C

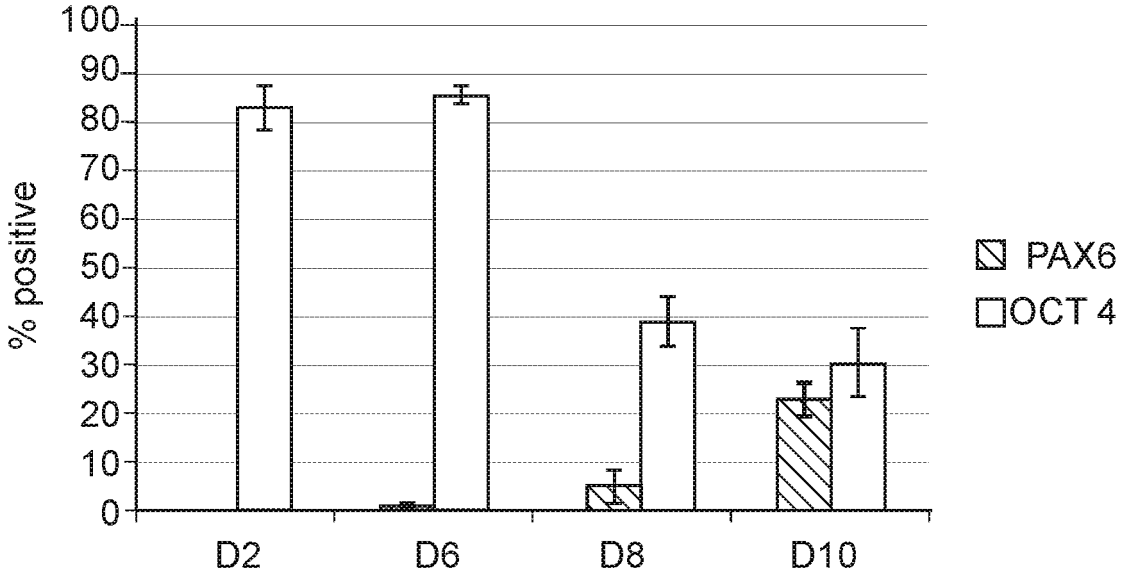

100
90
80
70
60
50
40
30
20
10
0
% positive
D2
D6
D8
D10
PAX6
OCT 4

FIG. 1D

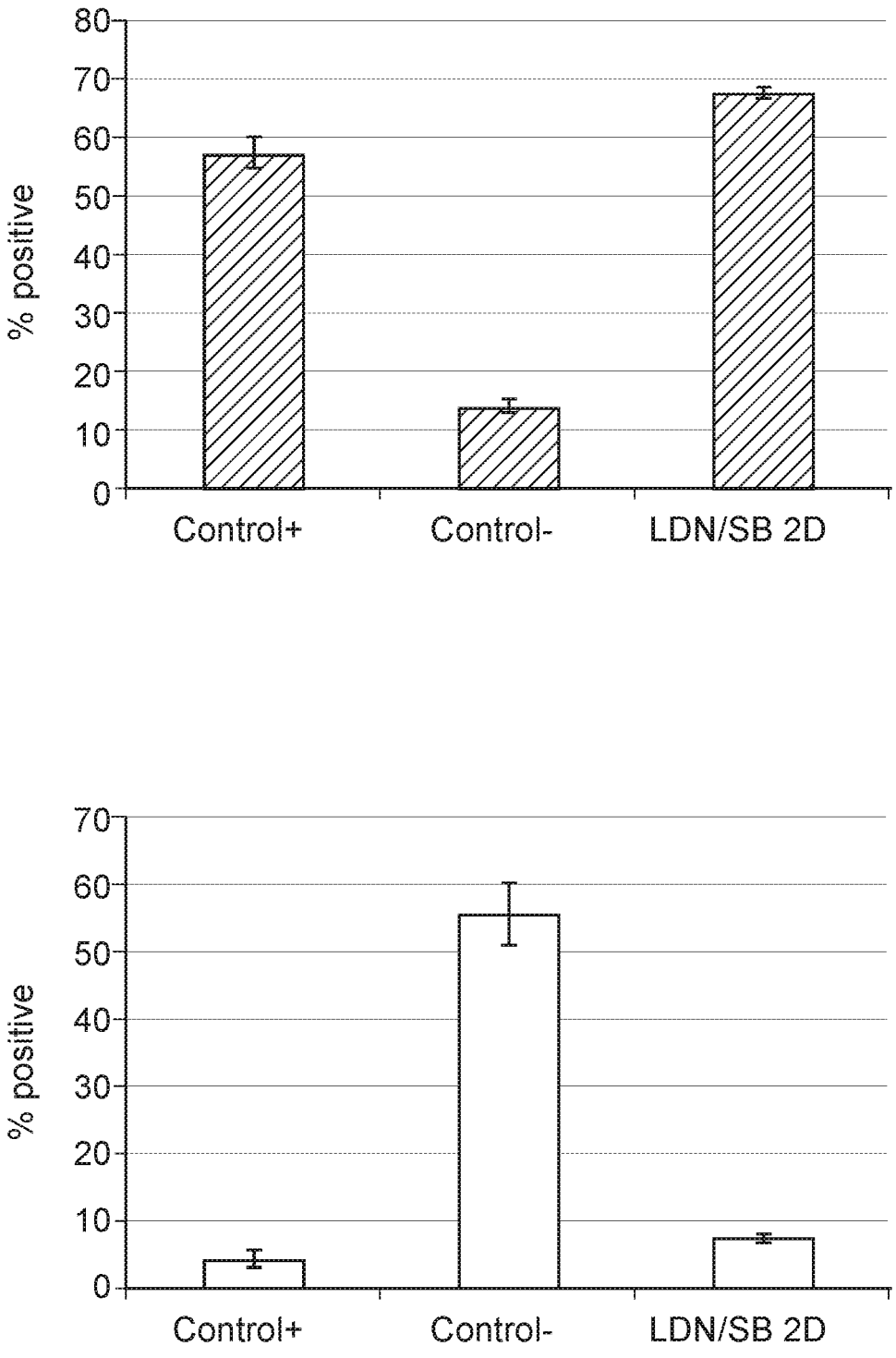

80
70
60
50
40
30
20
10
0
% positive
Control+
Control-
LDN/SB 2D
70
60
50
40
30
20
10
0
% positive
Control+
Control-
LDN/SB 2D

FIG. 2A

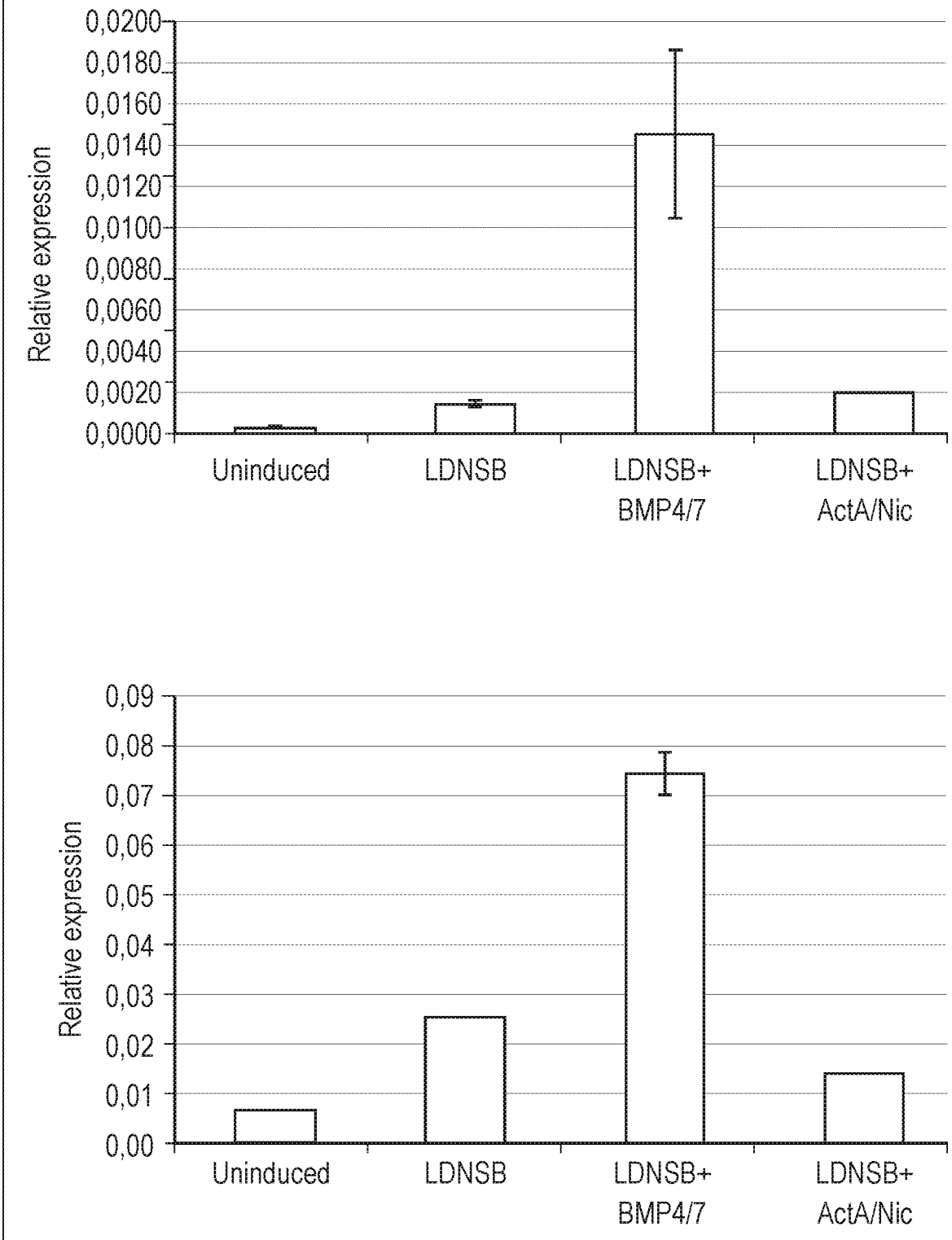

Relative expression
0,0200
0,0180
0,0160
0,0140
0,0120
0,0100
0,0080
0,0060
0,0040
0,0020
0,0000
Uninduced
LDNSB
LDNSB+ BMP4/7
LDNSB+ ActA/Nic
Relative expression
0,09
0,08
0,07
0,06
0,05
0,04
0,03
0,02
0,01
0,00
Uninduced
LDNSB
LDNSB+ BMP4/7
LDNSB+ ActA/Nic

FIG. 2B

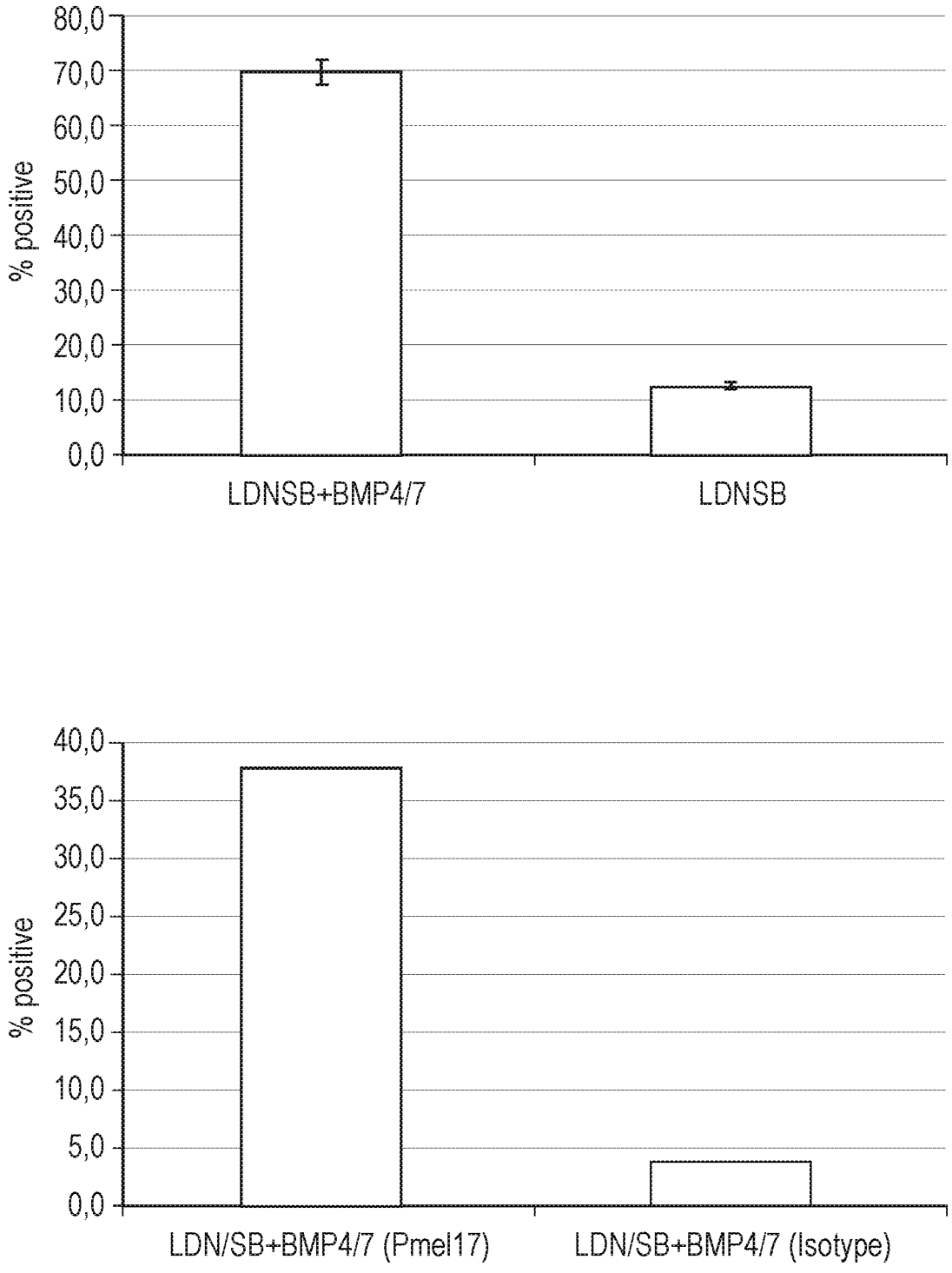

80,0
70,0
60,0
50,0
40,0
30,0
20,0
10,0
0,0
% positive
LDNSB+BMP4/7
LDNSB
40,0
35,0
30,0
25,0
20,0
15,0
10,0
5,0
0,0
% positive
LDN/SB+BMP4/7 (Pmel17)
LDN/SB+BMP4/7 (Isotype)

FIG. 3

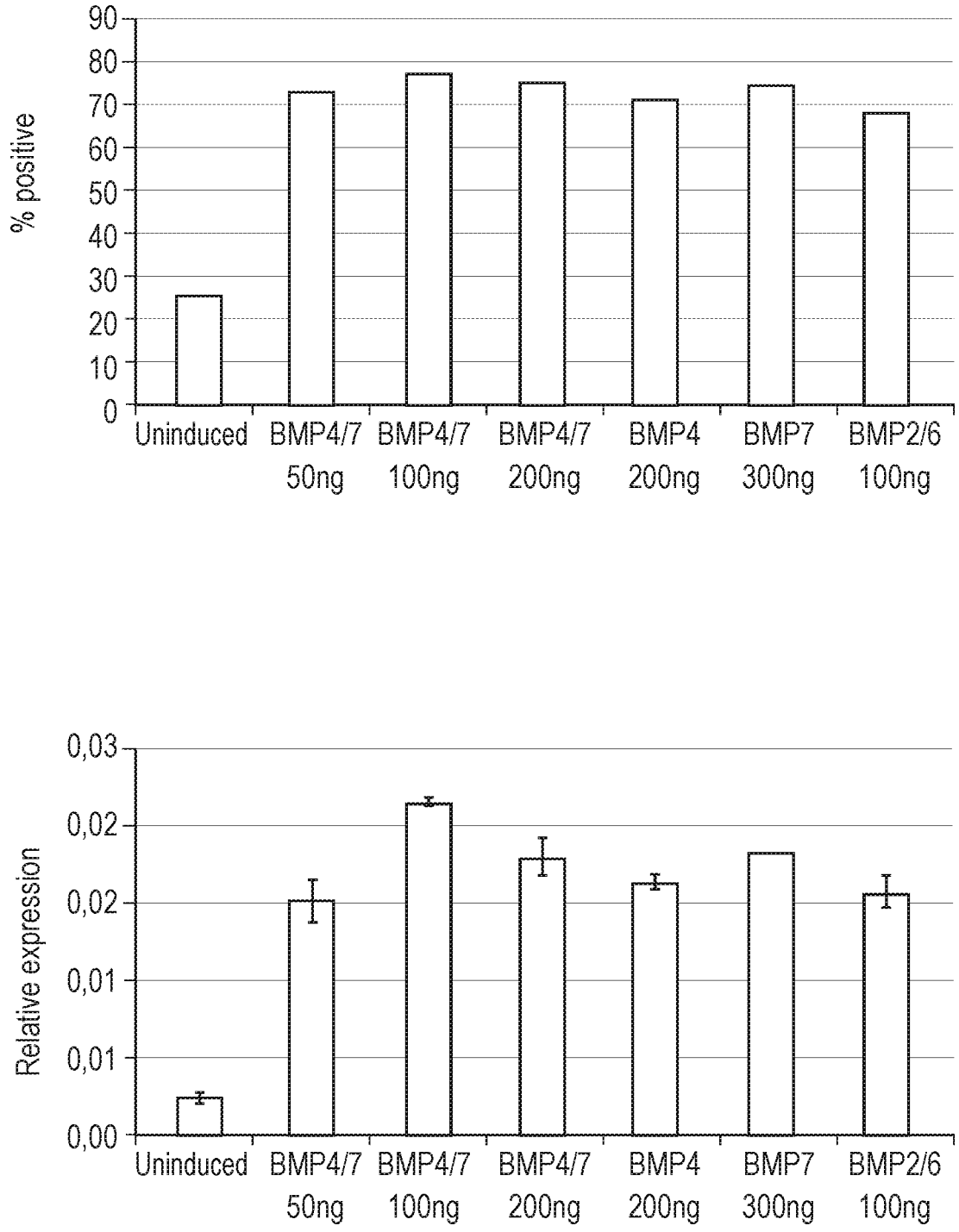

% positive
90
80
70
60
50
40
30
20
10
0
Uninduced
BMP4/7 50ng
BMP4/7 100ng
BMP4/7 200ng
BMP4 200ng
BMP7 300ng
BMP2/6 100ng
Relative expression
0,03
0,02
0,02
0,01
0,01
0,00
Uninduced
BMP4/7 50ng
BMP4/7 100ng
BMP4/7 200ng
BMP4 200ng
BMP7 300ng
BMP2/6 100ng

FIG. 4A

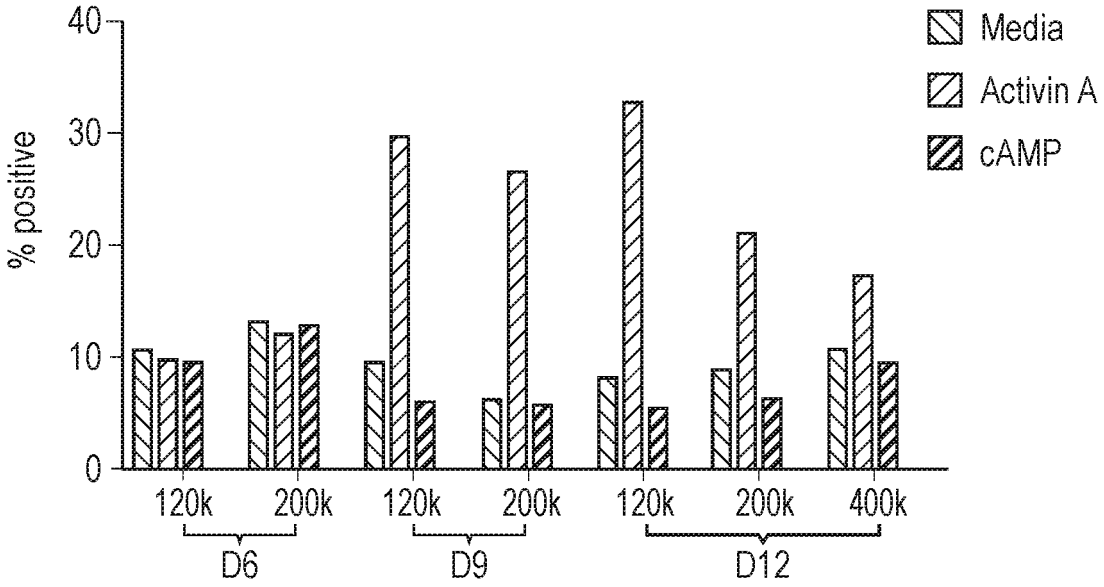

40
30
20
10
0
% positive
Media
Activin A
cAMP
120k
200k
120k
200k
120k
200k
400k
D6
D9
D12

FIG. 4B

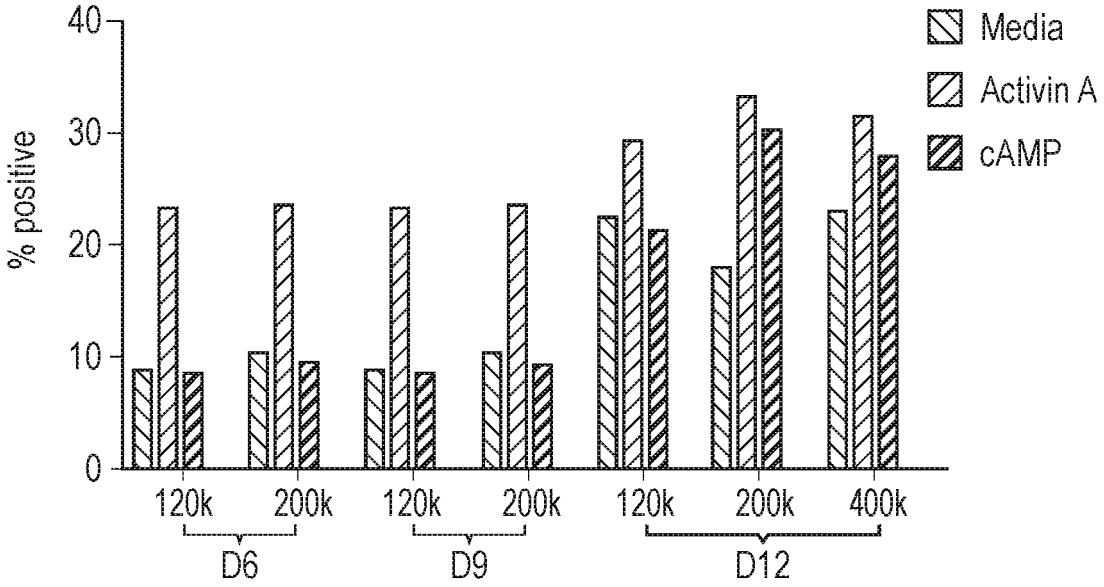

40
30
20
10
0
% positive
Media
Activin A
cAMP
120k
200k
120k
200k
120k
200k
400k
D6
D9
D12

FIG. 4C

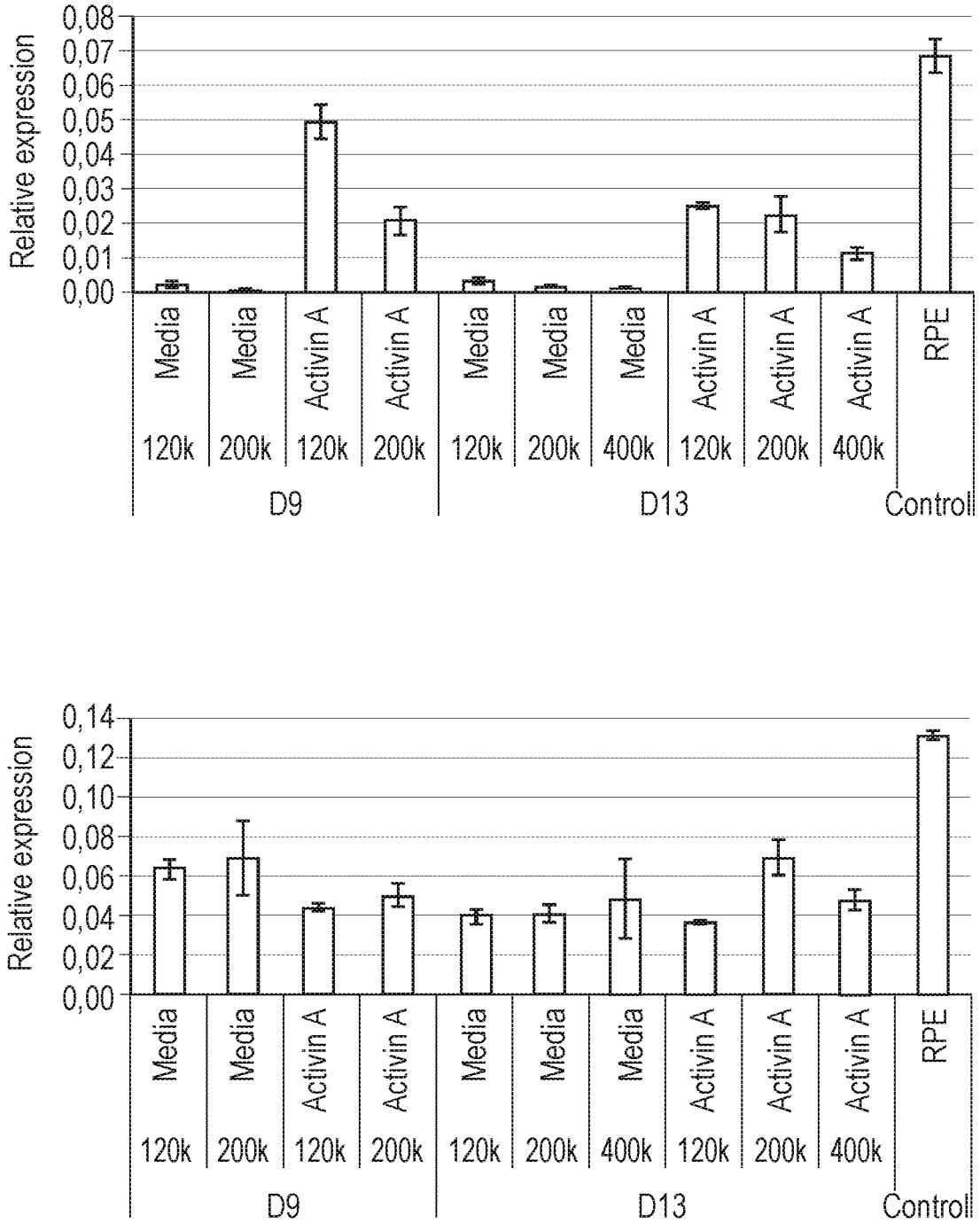

Relative expression
0,08
0,07
0,06
0,05
0,04
0,03
0,02
0,01
0,00
Media
Media
Activin A
Activin A
Media
Media
Media
Activin A
Activin A
Activin A
RPE
120k
200k
120k
200k
120k
200k
400k
120k
200k
400k
D9
D13
Control
Relative expression
0,14
0,12
0,10
0,08
0,06
0,04
0,02
0,00
Media
Media
Activin A
Activin A
Media
Media
Media
Activin A
Activin A
Activin A
RPE
120k
200k
120k
200k
120k
200k
400k
120k
200k
400k
D9
D13
Control

FIG. 4D

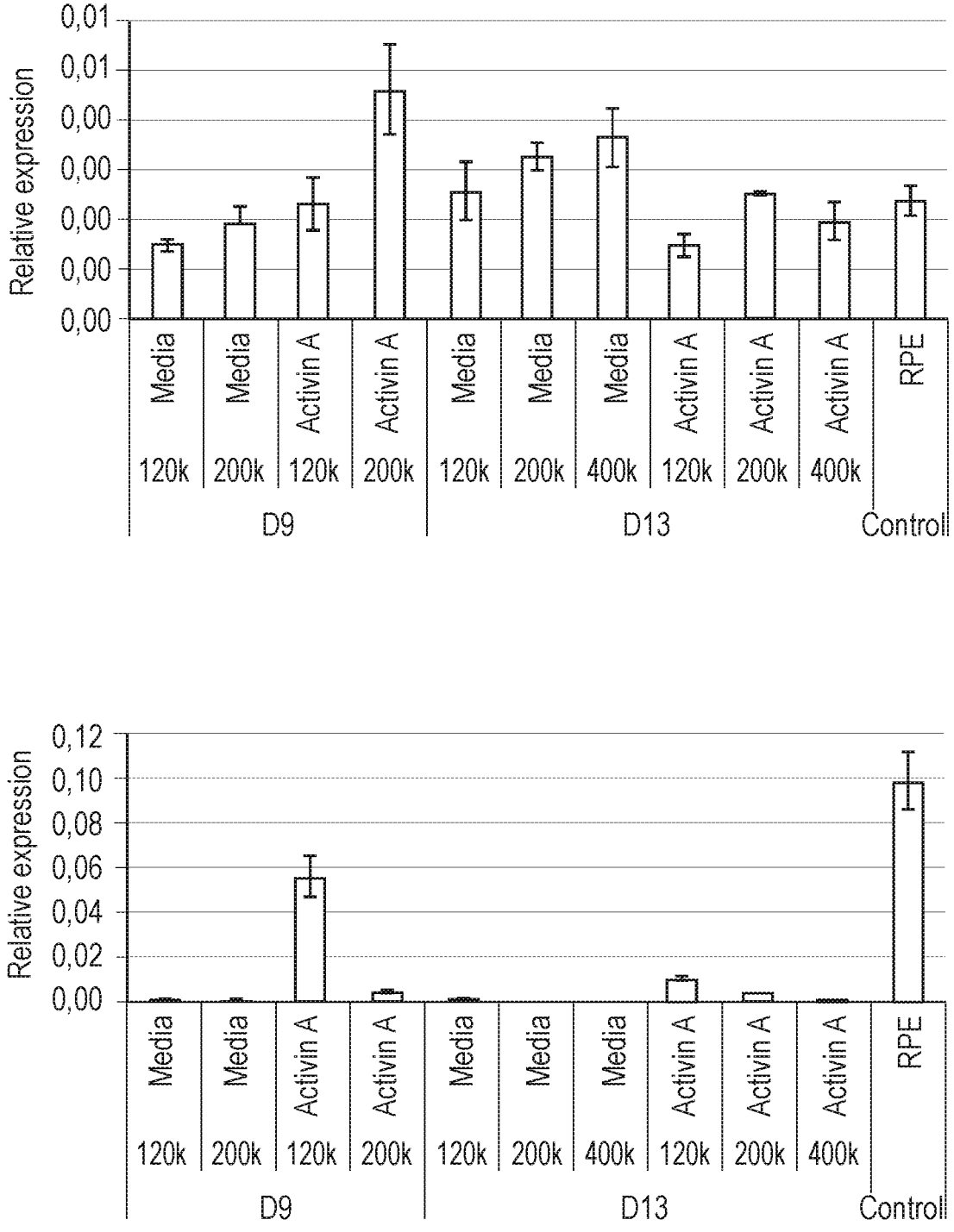

Relative expression
0,01
0,01
0,00
0,00
0,00
0,00
Media
Media
Activin A
Activin A
Media
Media
Media
Activin A
Activin A
Activin A
RPE
120k
200k
120k
200k
120k
200k
400k
120k
200k
400k
D9
D13
Control
Relative expression
0,12
0,10
0,08
0,06
0,04
0,02
0,00
Media
Media
Activin A
Activin A
Media
Media
Media
Activin A
Activin A
Activin A
RPE
120k
200k
120k
200k
120k
200k
400k
120k
200k
400k
D9
D13
Control

FIG. 4E

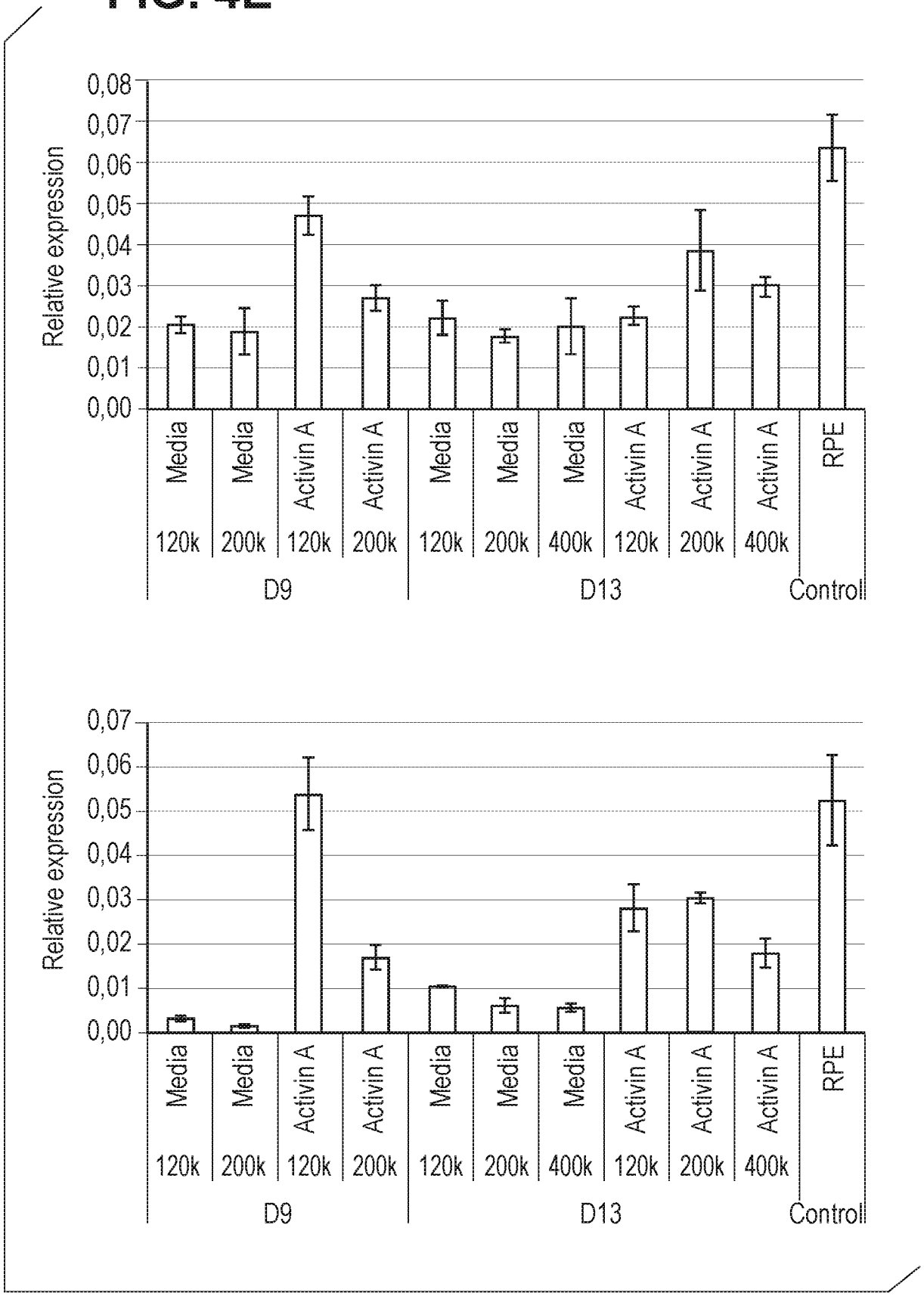

Relative expression
0,08
0,07
0,06
0,05
0,04
0,03
0,02
0,01
0,00
Media
Media
Activin A
Activin A
Media
Media
Media
Activin A
Activin A
Activin A
RPE
120k
200k
120k
200k
120k
200k
400k
120k
200k
400k
D9
D13
Control
Relative expression
0,07
0,06
0,05
0,04
0,03
0,02
0,01
0,00
Media
Media
Activin A
Activin A
Media
Media
Media
Activin A
Activin A
Activin A
RPE
120k
200k
120k
200k
120k
200k
400k
120k
200k
400k
D9
D13
Control

FIG. 5

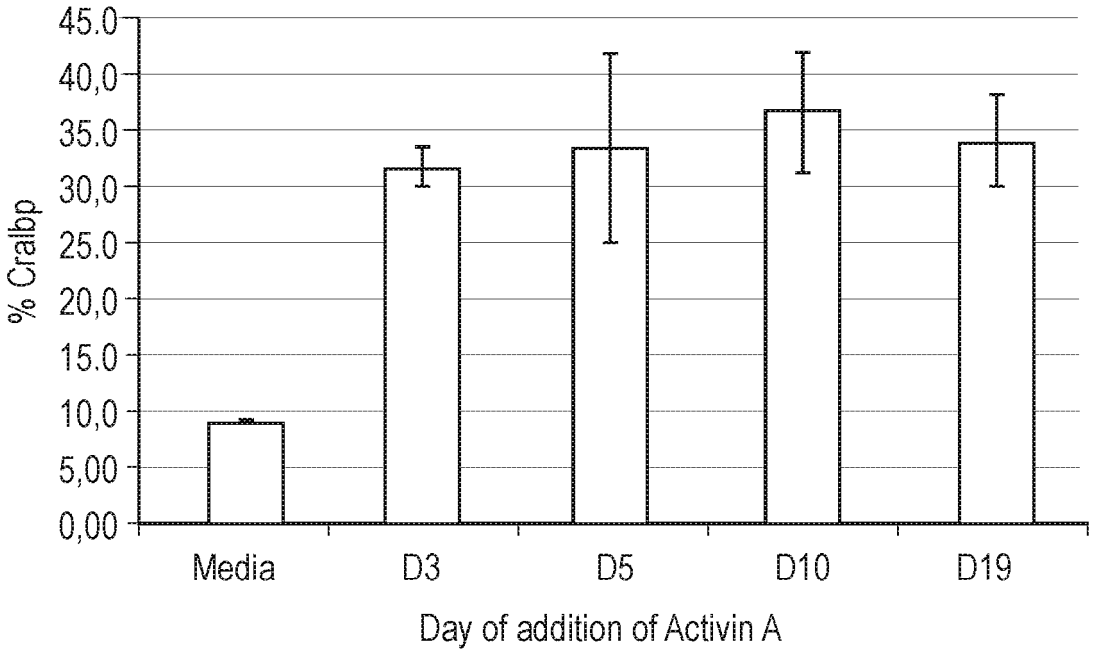

45,0
40,0
35,0
30,0
25,0
20,0
15,0
10,0
5,00
0,00
% Cralbp
Media
D3
D5
D10
D19
Day of addition of Activin A

FIG. 6

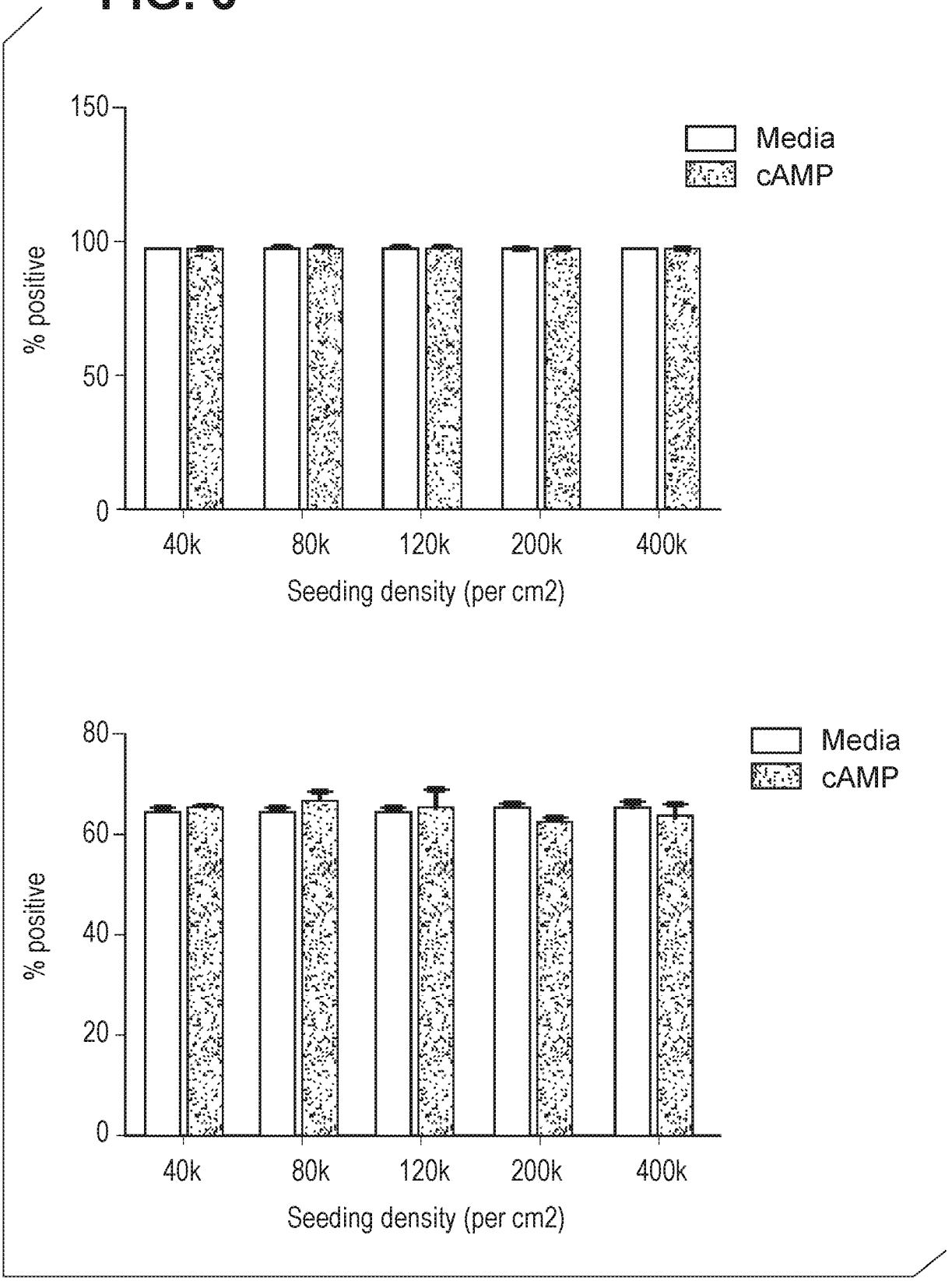

150
100
50
0
% positive
Media
cAMP
40k
80k
120k
200k
400k
Seeding density (per cm2)
80
60
40
20
0
% positive
Media
cAMP
40k
80k
120k
200k
400k
Seeding density (per cm2)

FIG. 7

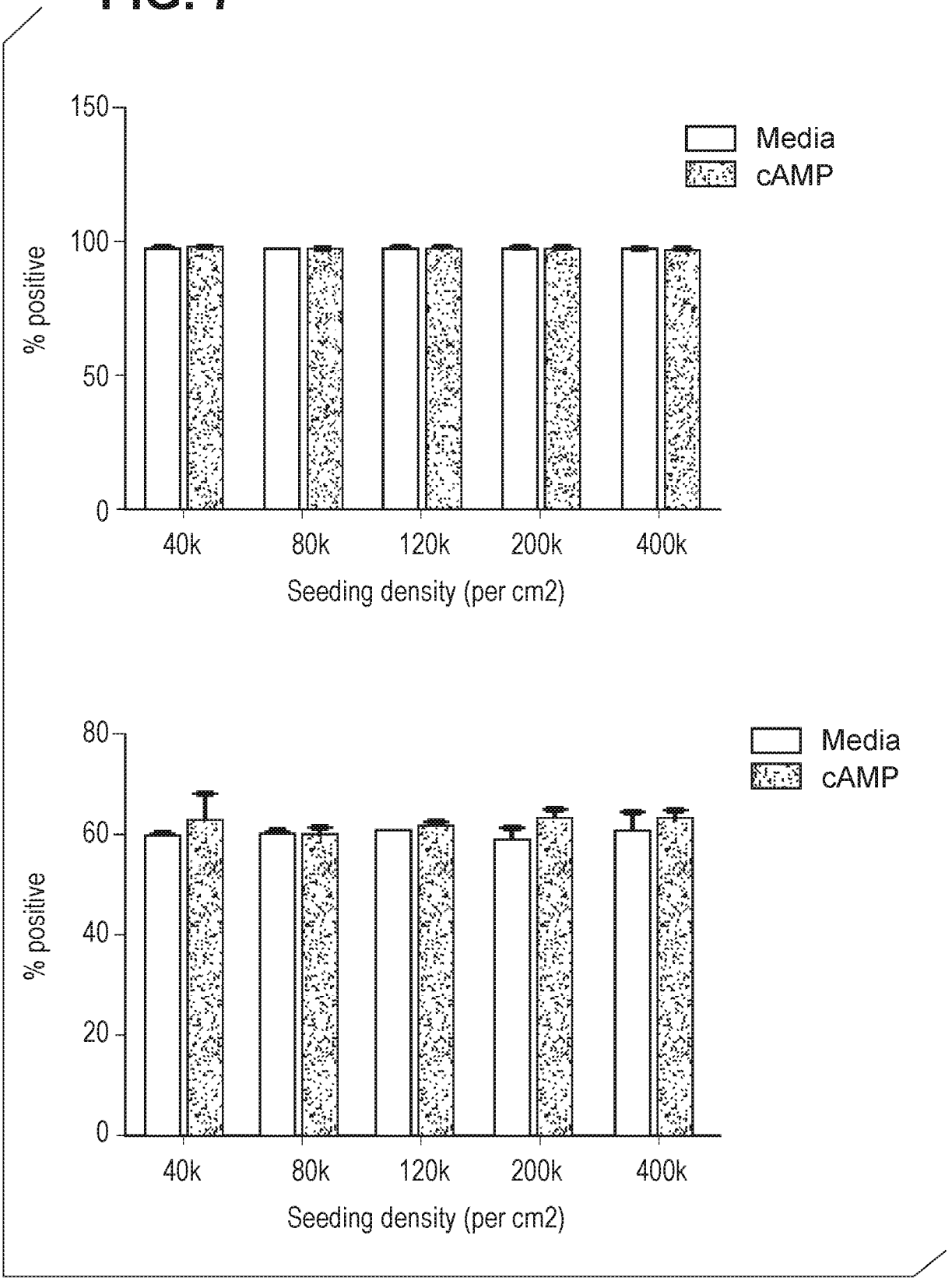

150
100
50
0
% positive
Media
cAMP
40k
80k
120k
200k
400k
Seeding density (per cm2)
80
60
40
20
0
% positive
Media
cAMP
40k
80k
120k
200k
400k
Seeding density (per cm2)

FIG. 8A

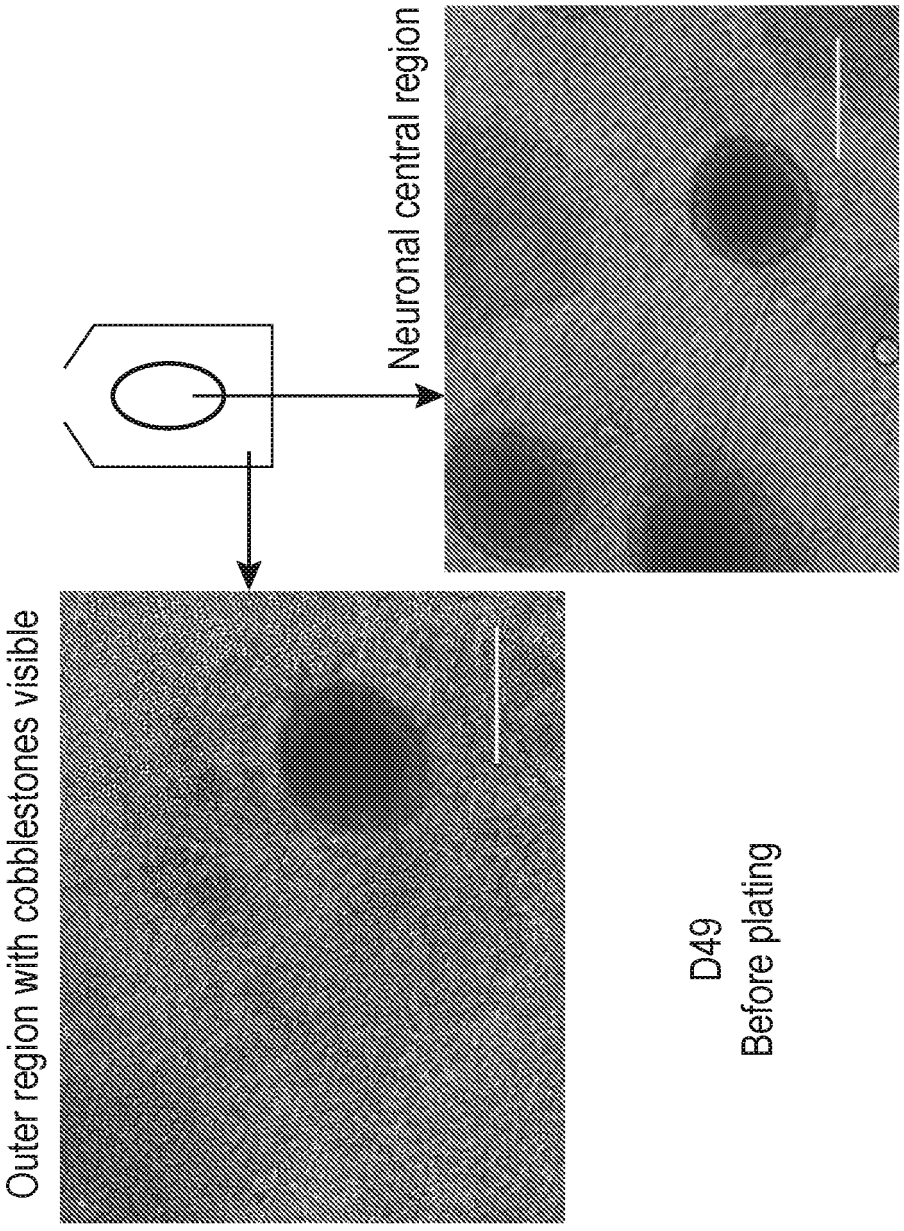

Neuronal central region
Outer region with cobblestones visible
D49
Before plating

FIG. 8B

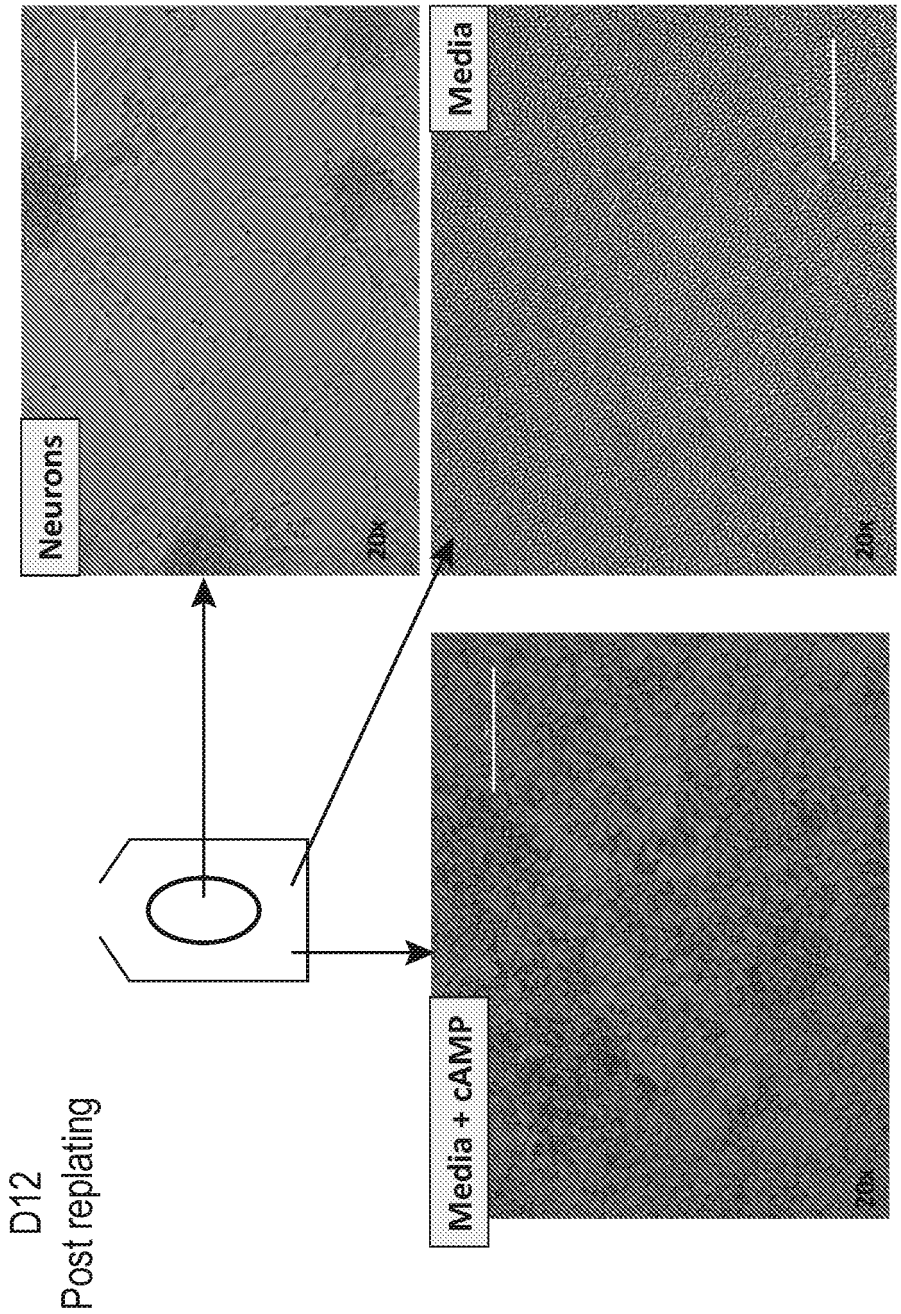
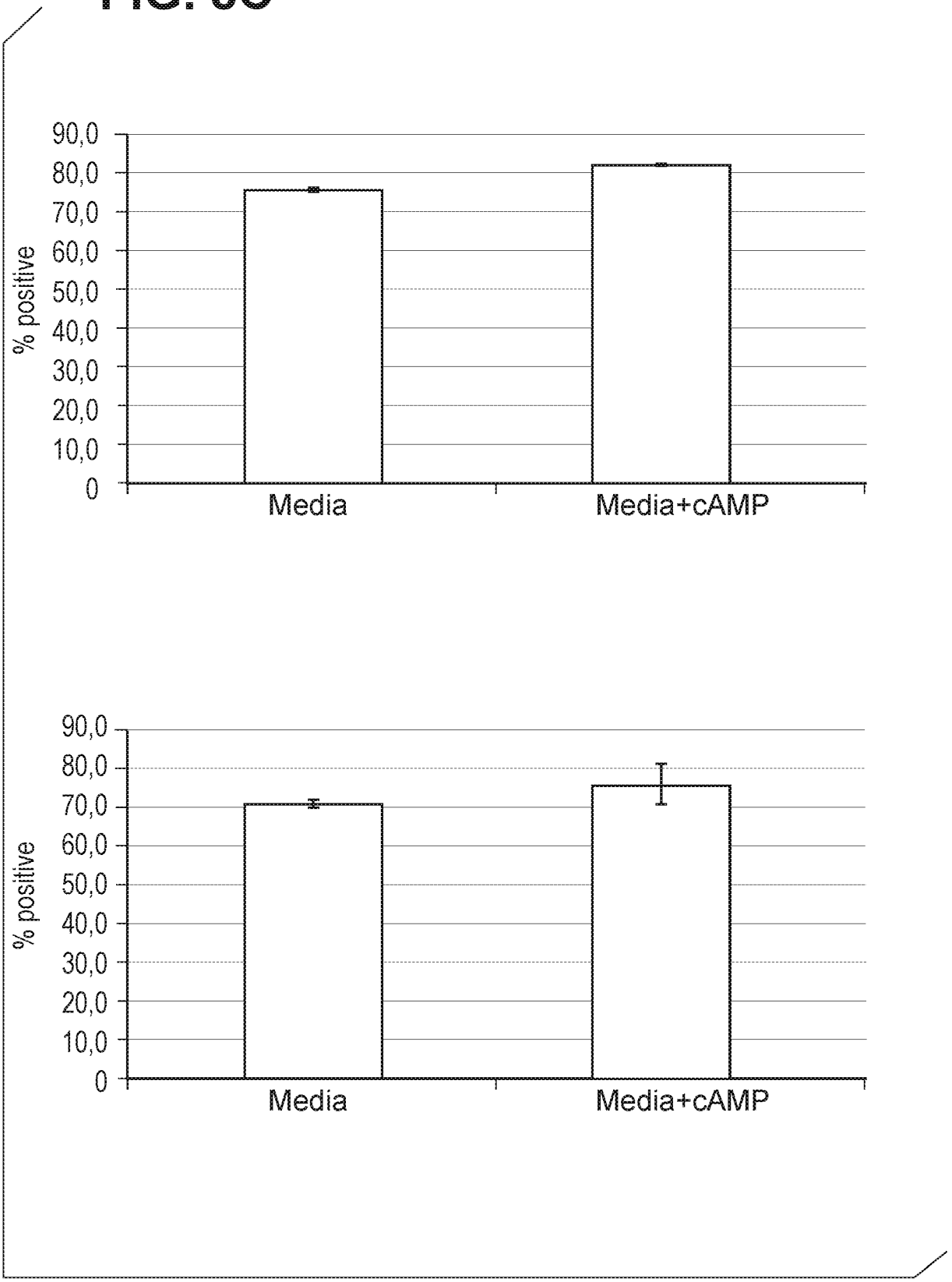


FIG. 8C


90,0
80,0
70,0
60,0
50,0
40,0
30,0
20,0
10,0
0
% positive
Media
Media+cAMP
90,0
80,0
70,0
60,0
50,0
40,0
30,0
20,0
10,0
0
% positive
Media
Media+cAMP

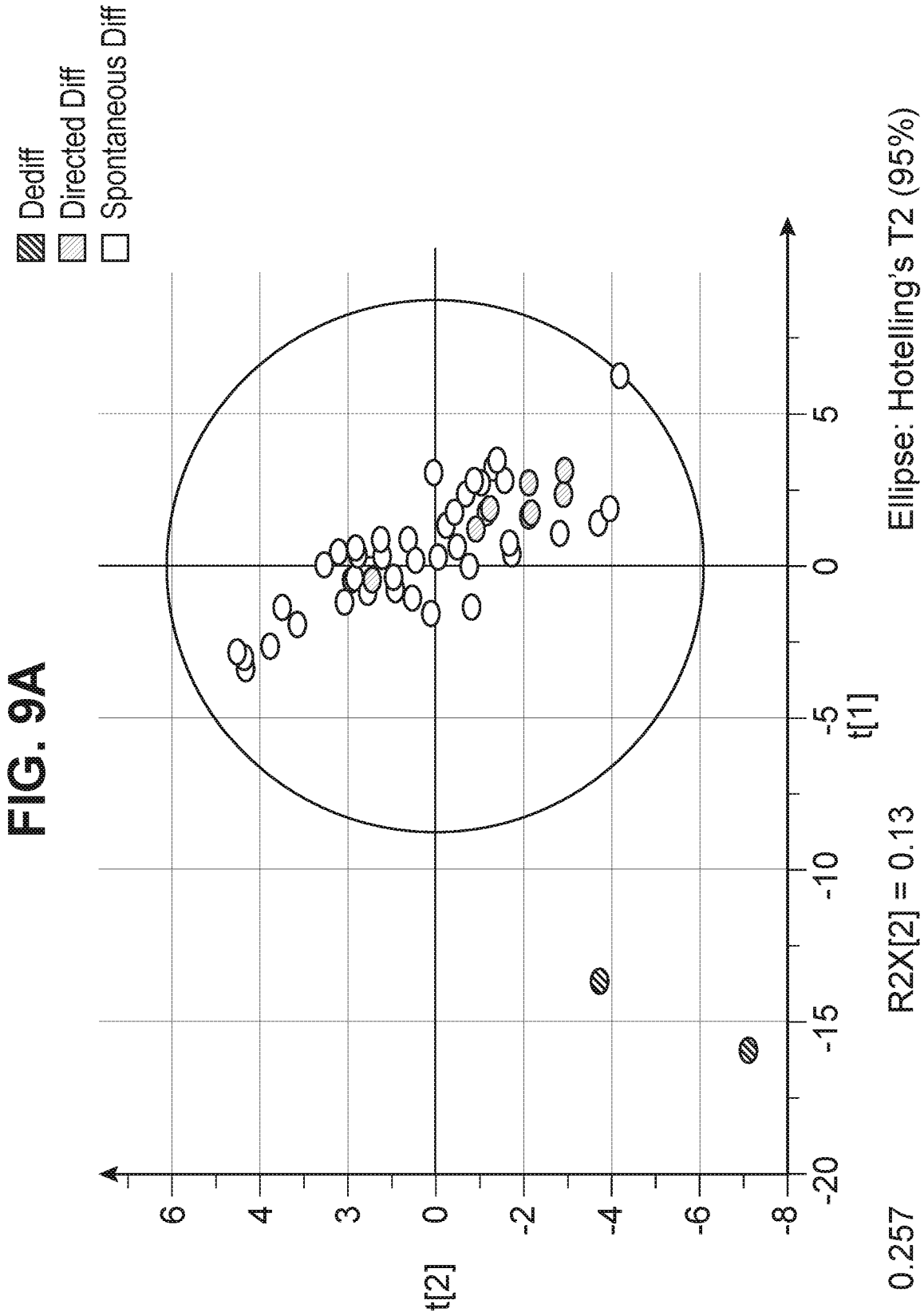

Dediff
Directed Diff
Spontaneous Diff
Ellipse: Hotelling's T2 (95%)
R2X[2] = 0.13
0.257
t[1]
t[2]
5
0
-5
-10
-15
-20
6
4
3
0
-2
-4
-6
-8

FIG. 9A

FIG. 9B

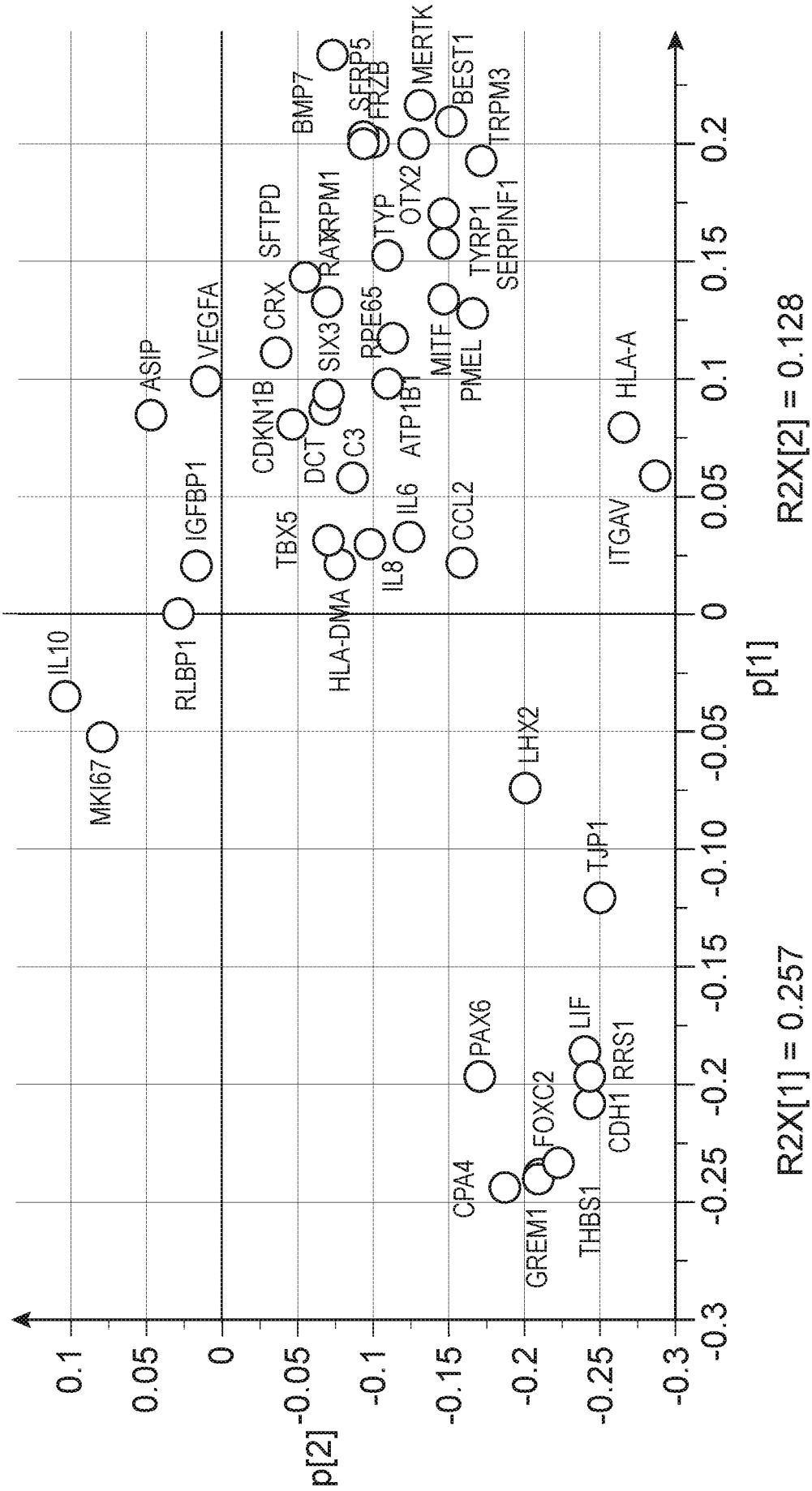
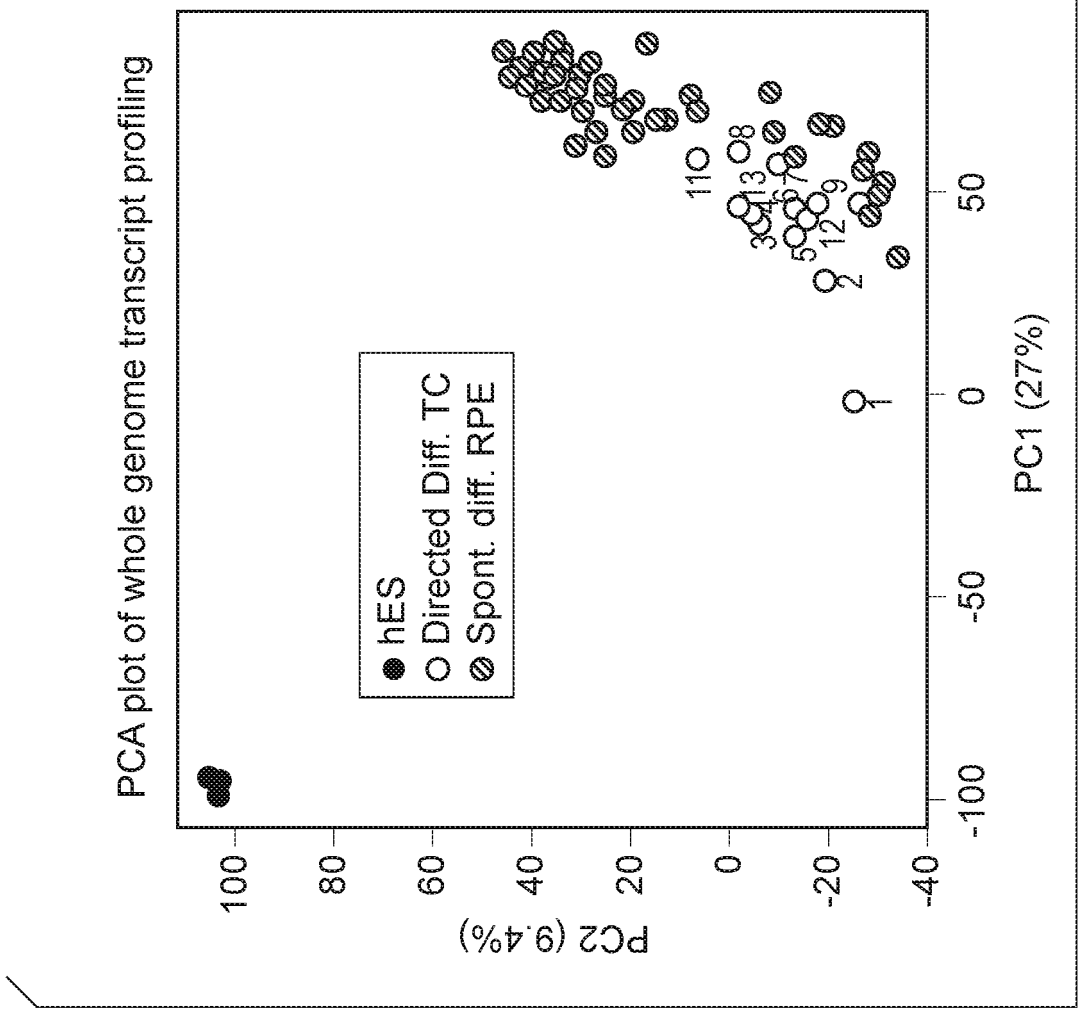

p[2]
p[1]
R2X[1] = 0.257
R2X[2] = 0.128
IL10
MKI67
RLBP1
ASIP
IGFBP1
VEGFA
CDKN1B
CRX
SFTPD
DCT
C3
SIX3
RAX
RPM1
BMP7
SFRP5
FRZB
MERTK
BEST1
TRPM3
OTX2
TYP
TYRP1
SERPINF1
RPE65
ATP1B1
MITF
PMEL
TBX5
HLA-DMA
IL6
IL8
CCL2
ITGAV
HLA-A
LHX2
TJP1
PAX6
LIF
RRS1
CDH1
FOXC2
GREM1
CPA4
THBS1

FIG. 9C



Sample number	Protocol	Time point	Culture
1	Early Replate 1	D9-19	Media
2	Early Replate 1	D9-19	Activin A
3, 5	Early Replate 2	D9-19-14	Media
4, 6	Early Replate 2	D9-19-14	cAMP
7, 9, 11, 12	Late Replate	Replated between D50-77. Sample collection berween Day 28-42 post replating	Media
8, 10, 13	Late Replate	Replated between D50-77. Sample collection between Day 28-42 post replating	cAMP

FIG. 10A

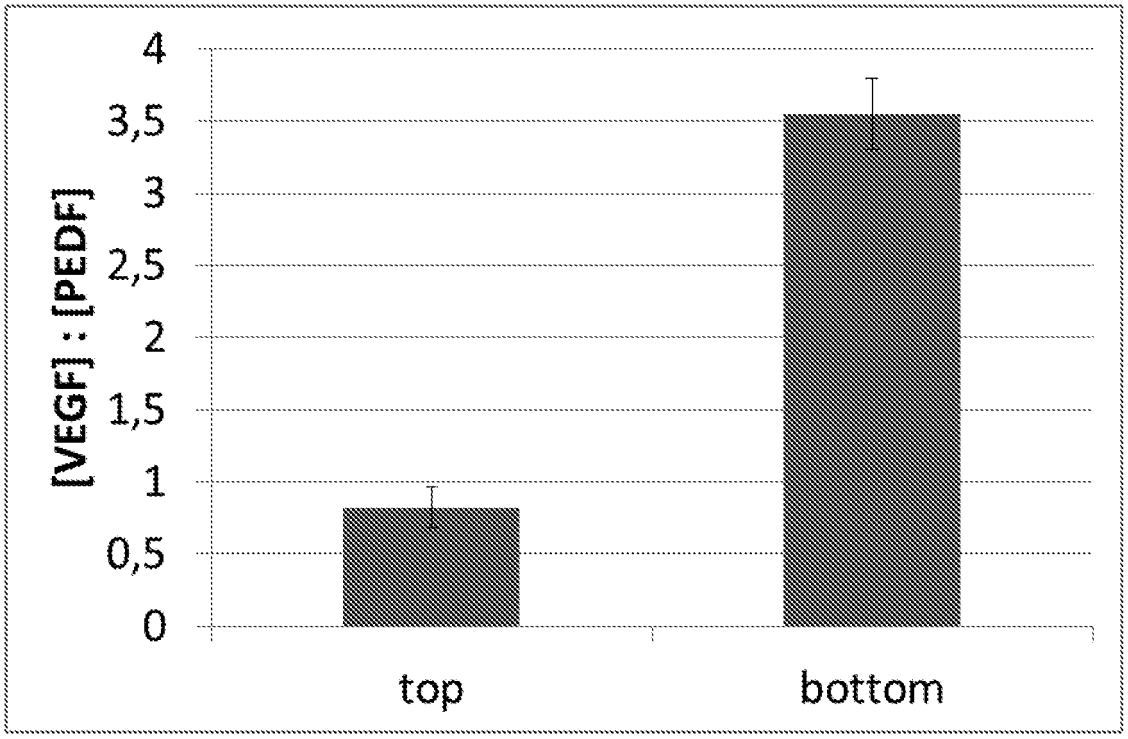


FIG. 10B

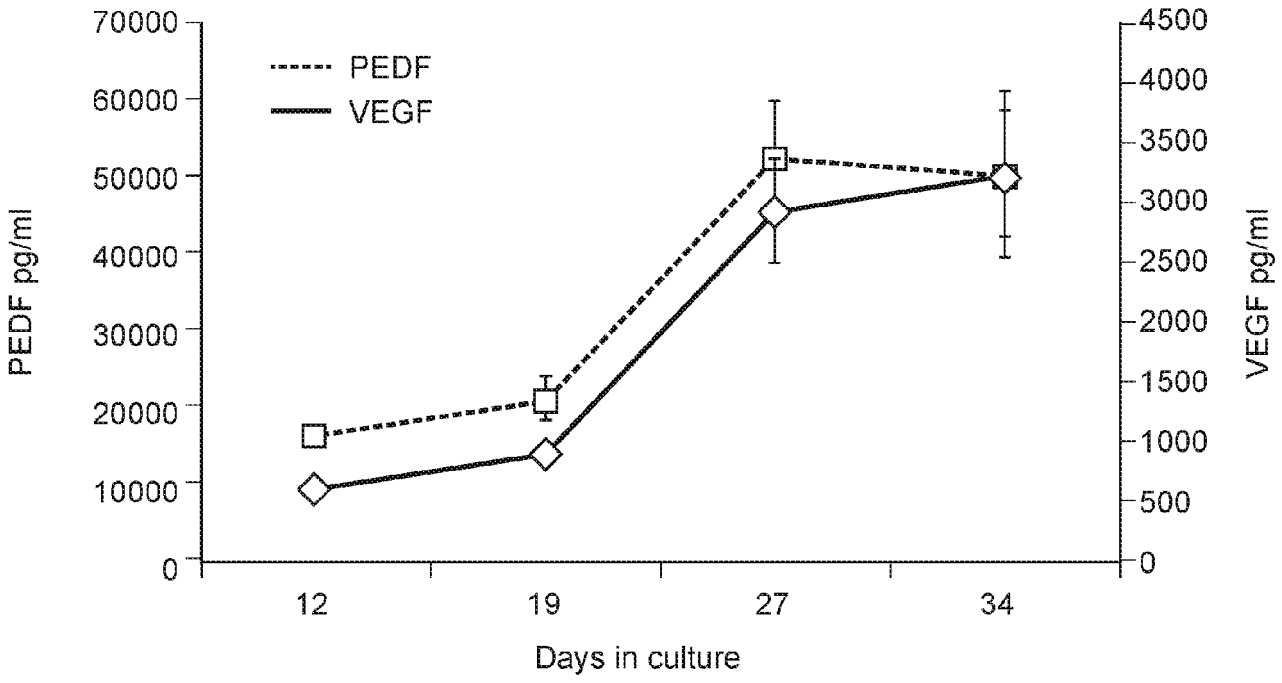

PEDF
VEGF
PEDF pg/ml
VEGF pg/ml
70000
60000
50000
40000
30000
20000
10000
0
4500
4000
3500
3000
2500
2000
1500
1000
500
0
12
19
27
34
Days in culture

FIG. 11A

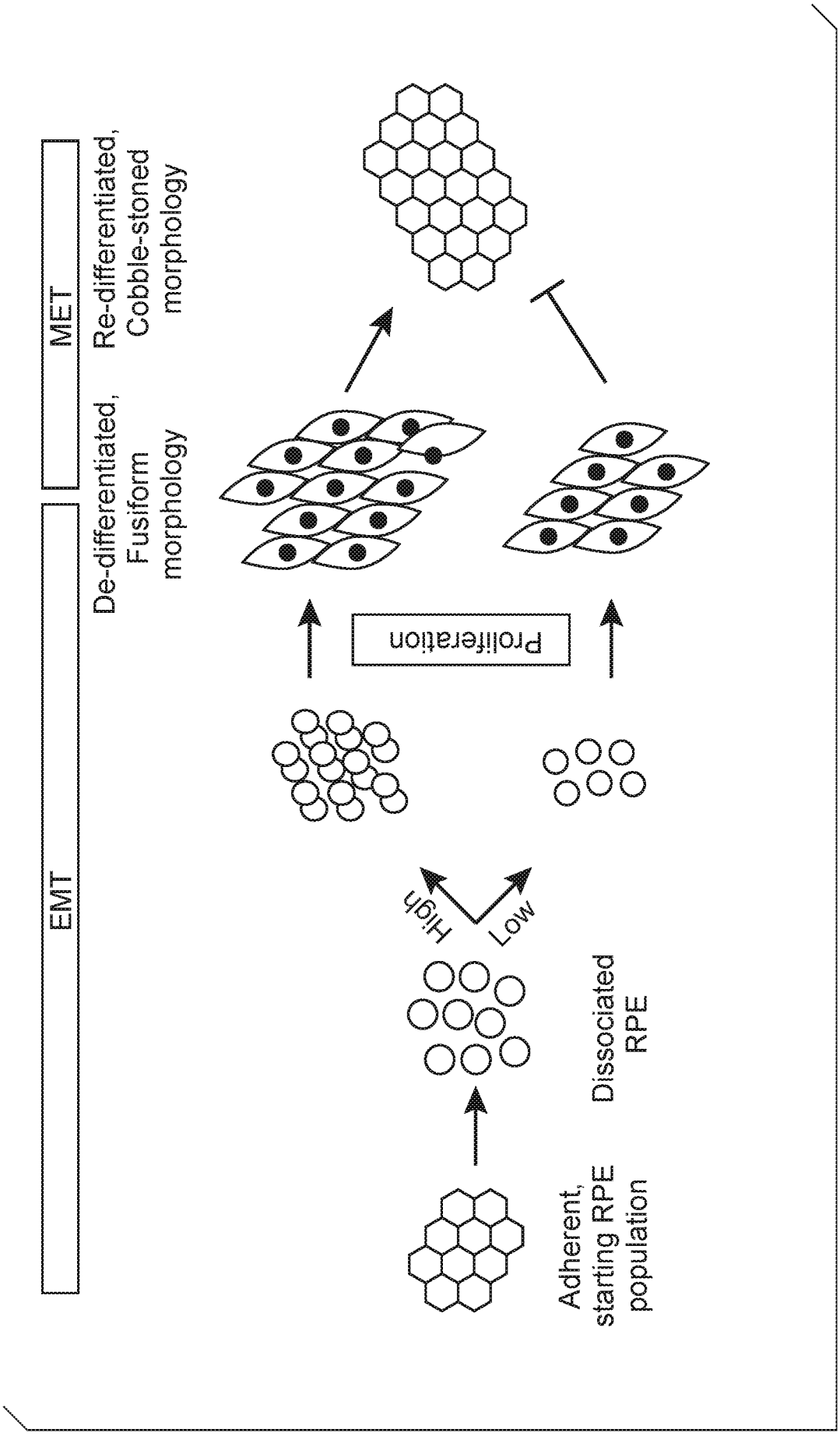

EMT
MET
De-differentiated, Fusiform morphology
Re-differentiated, Cobble-stoned morphology
Proliferation
High
Low
Adherent, starting RPE population
Dissociated RPE

FIG. 11B

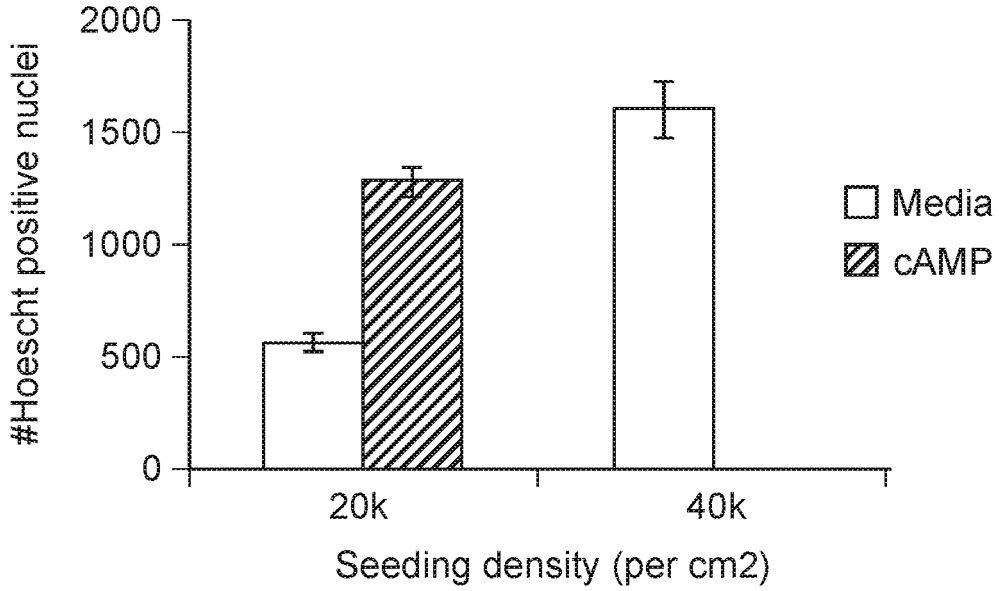


FIG. 11C

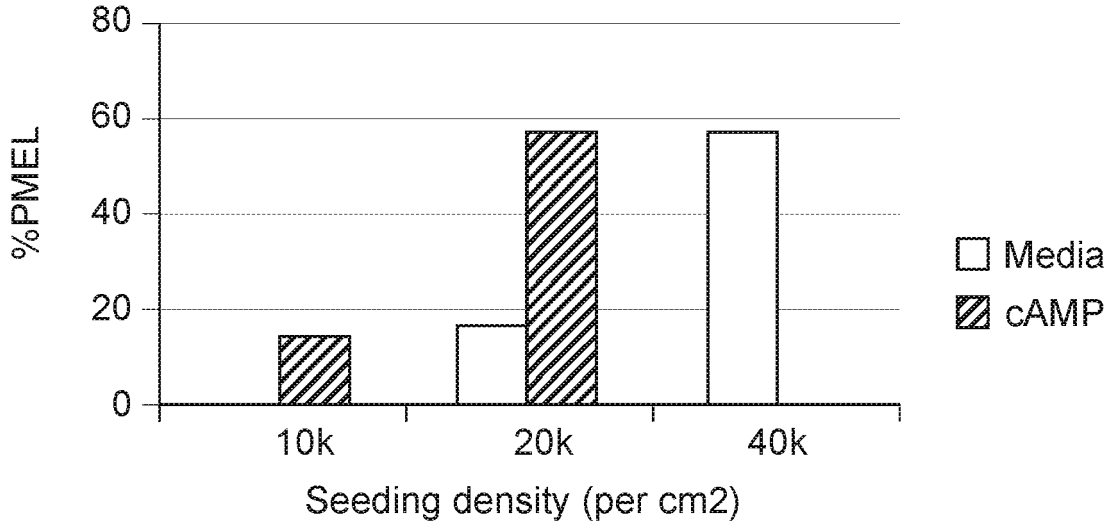


FIG. 11D

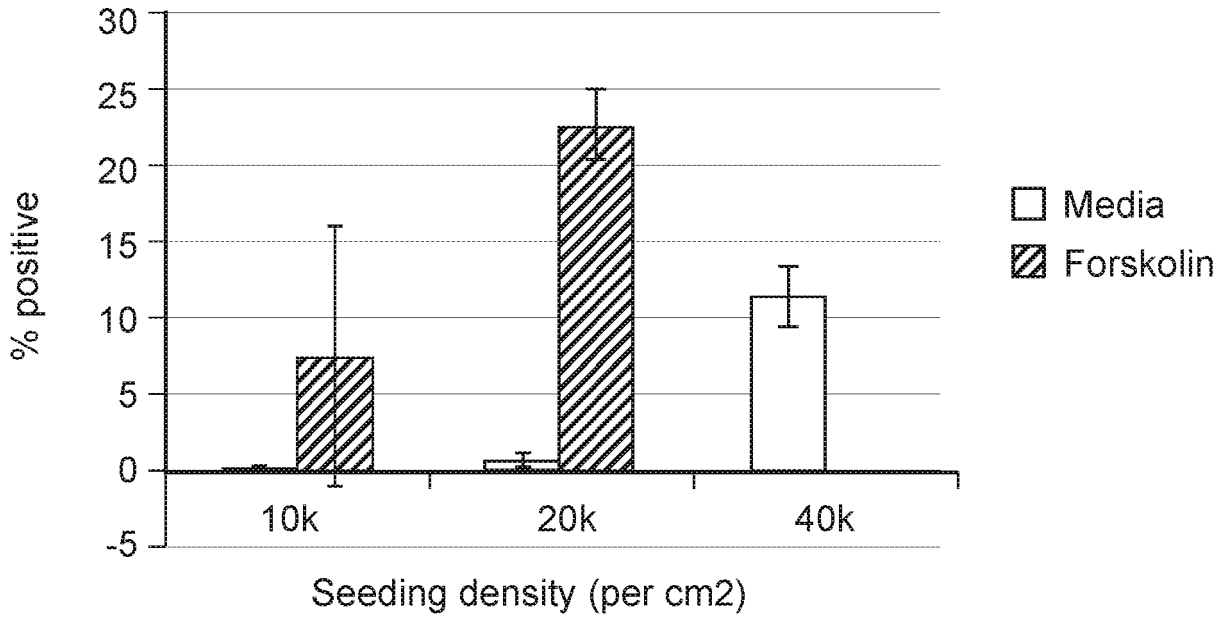

30
25
20
15
10
5
0
-5
% positive
10k
20k
40k
Seeding density (per cm2)
Media
Forskolin

FIG. 11E

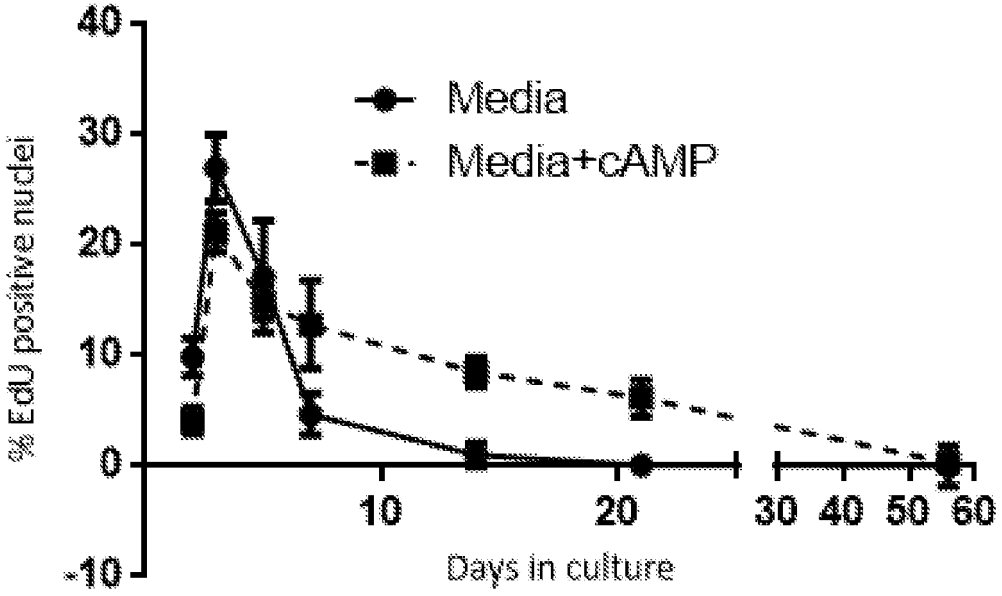


FIG. 11F

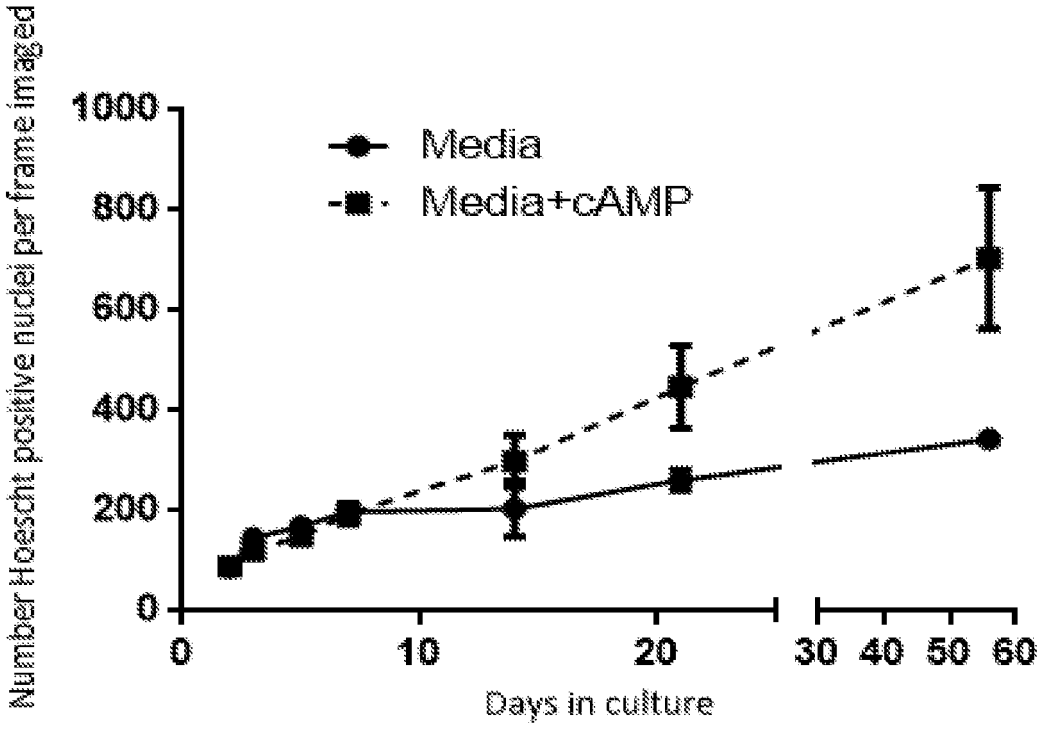


FIG. 11G

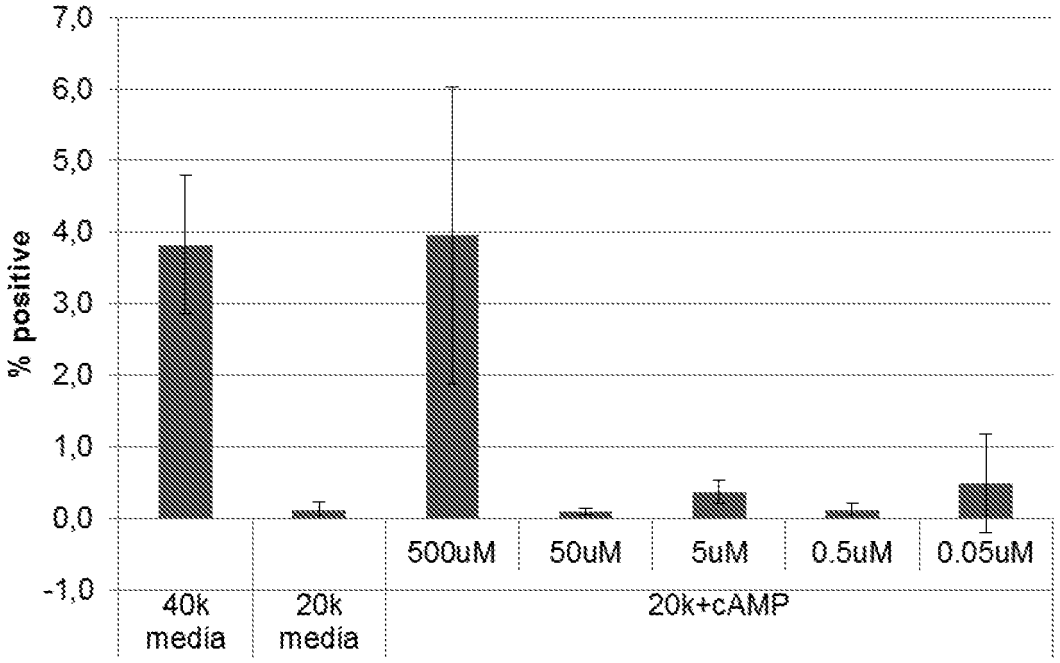


FIG. 11H

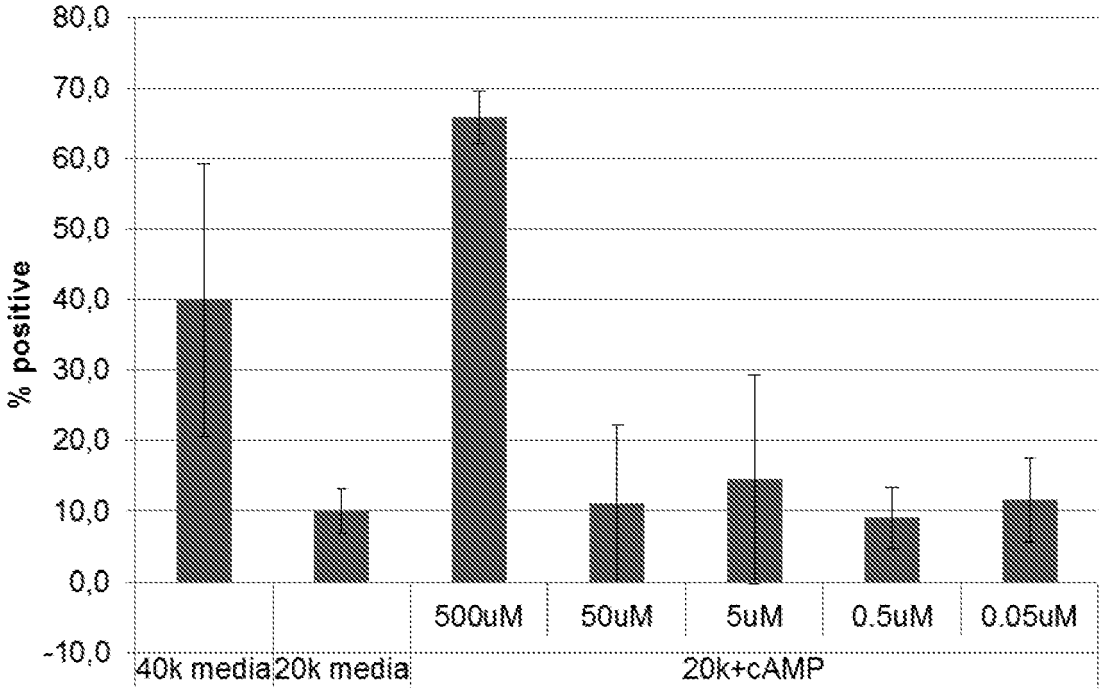


FIG. 11I

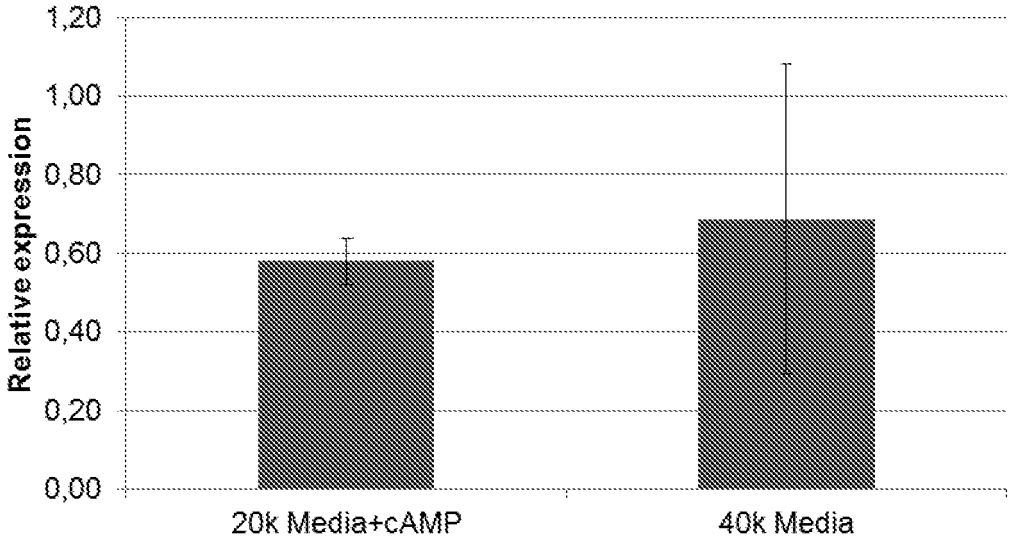


FIG. 11J

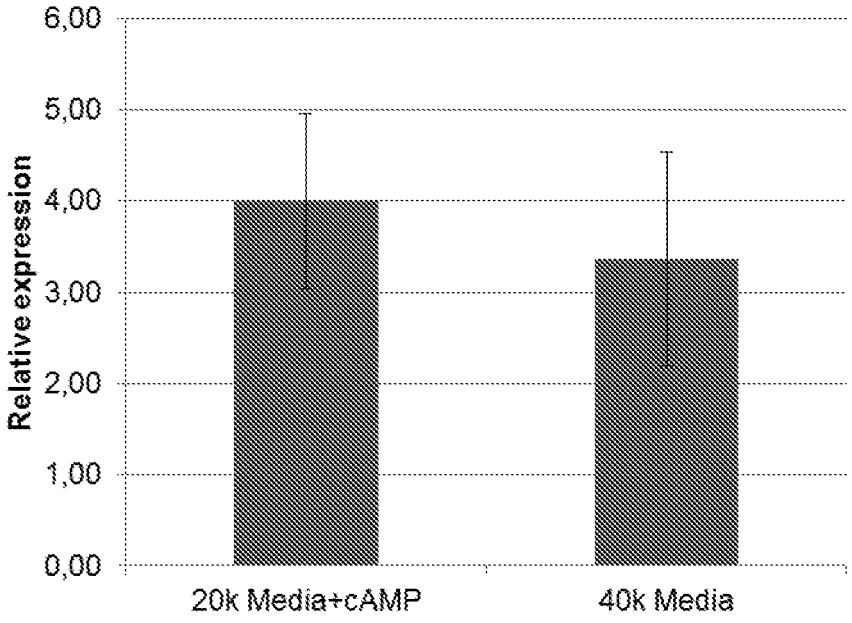


FIG. 11K

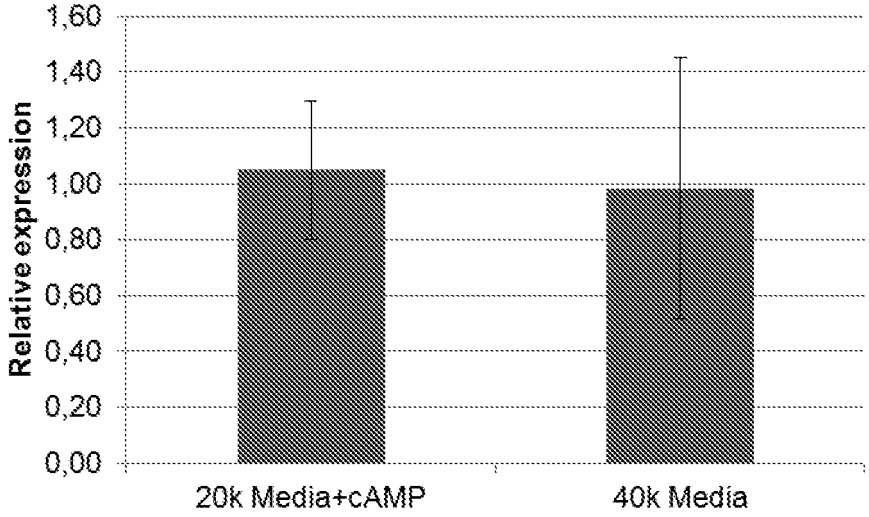

1,60
1,40
1,20
1,00
0,80
0,60
0,40
0,20
0,00
Relative expression
20k Media+cAMP
40k Media

FIG 12A

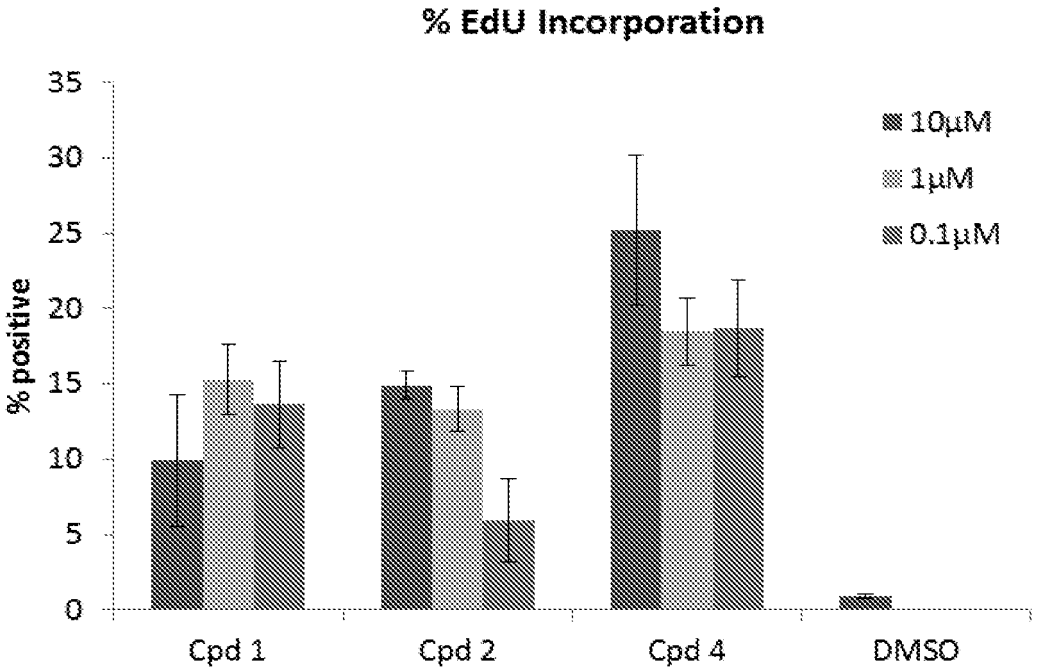


FIG 12B

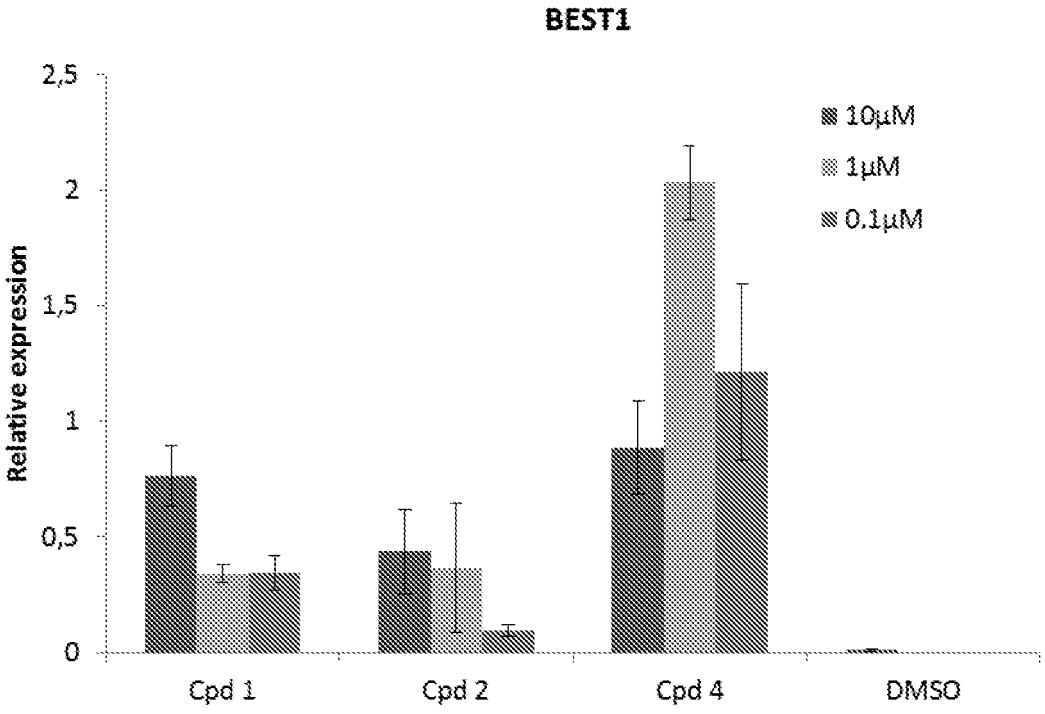


FIG 12C

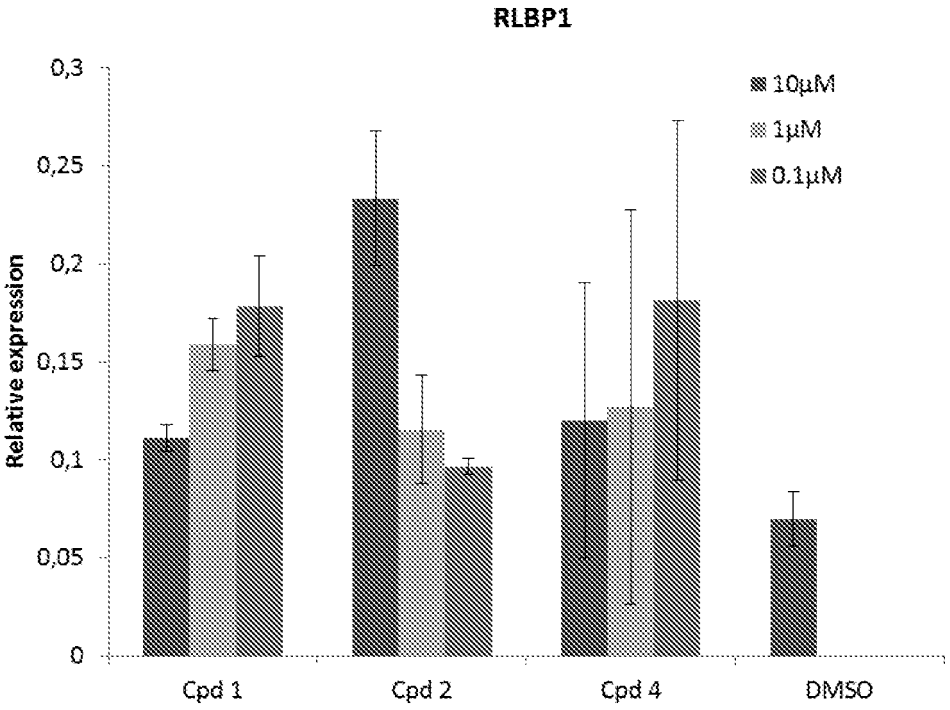


FIG 12D

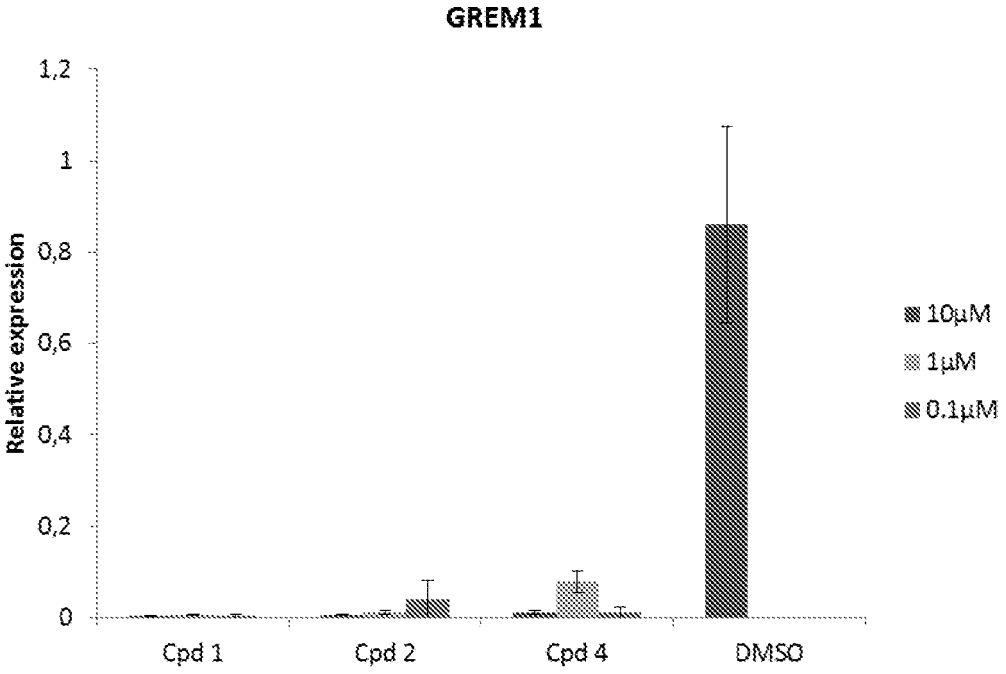


FIG 13A

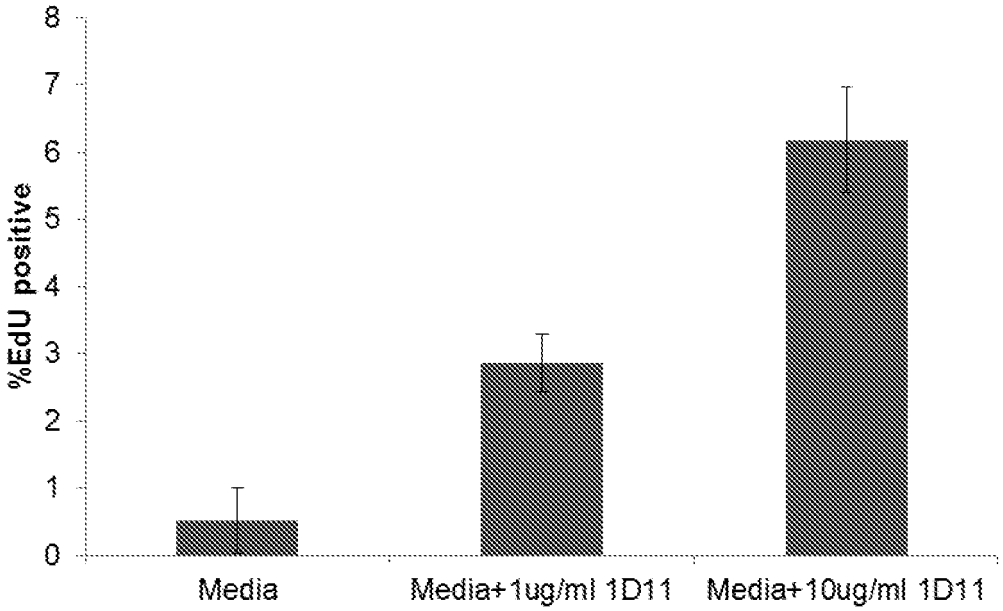


FIG 13B

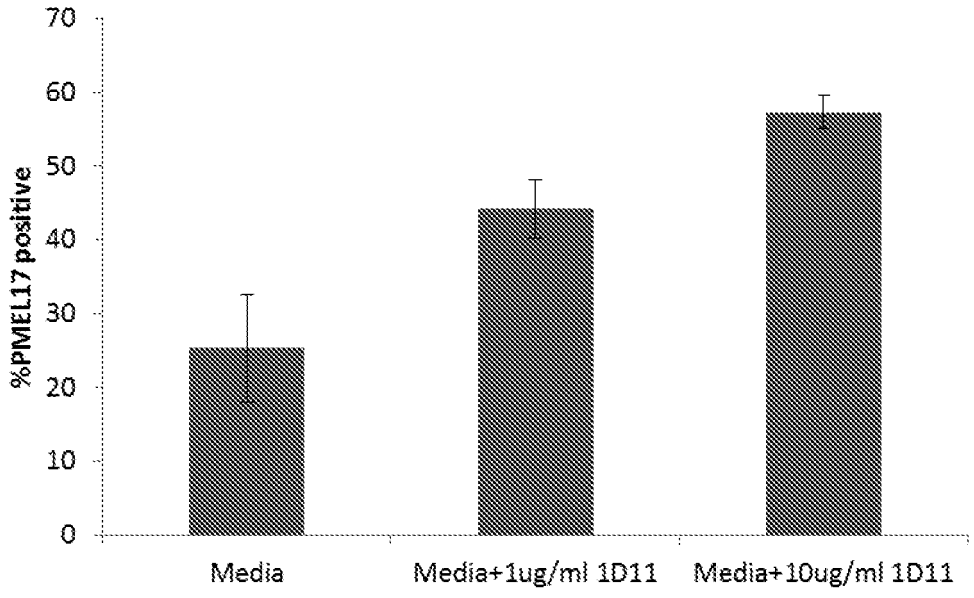


FIG 13C

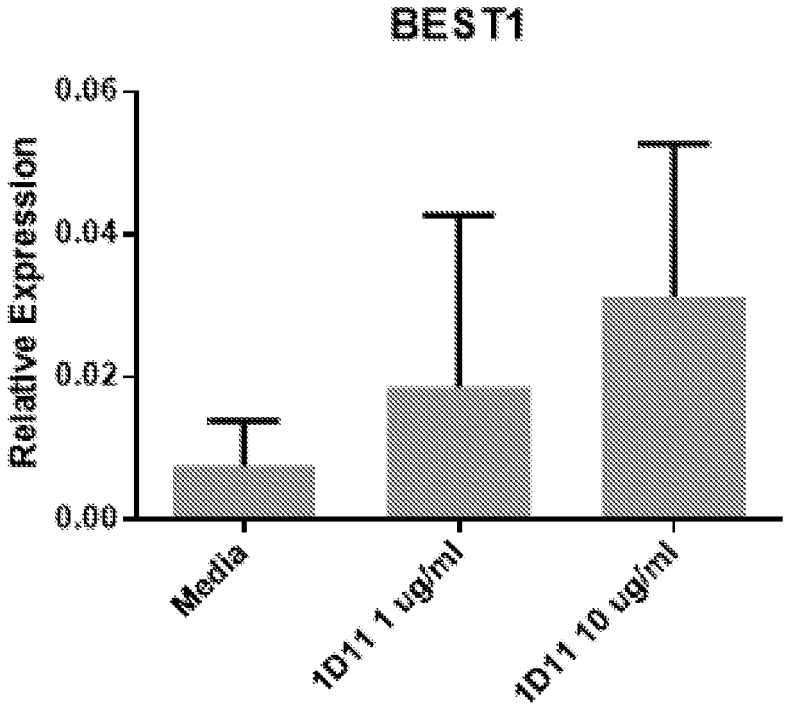


FIG 13D

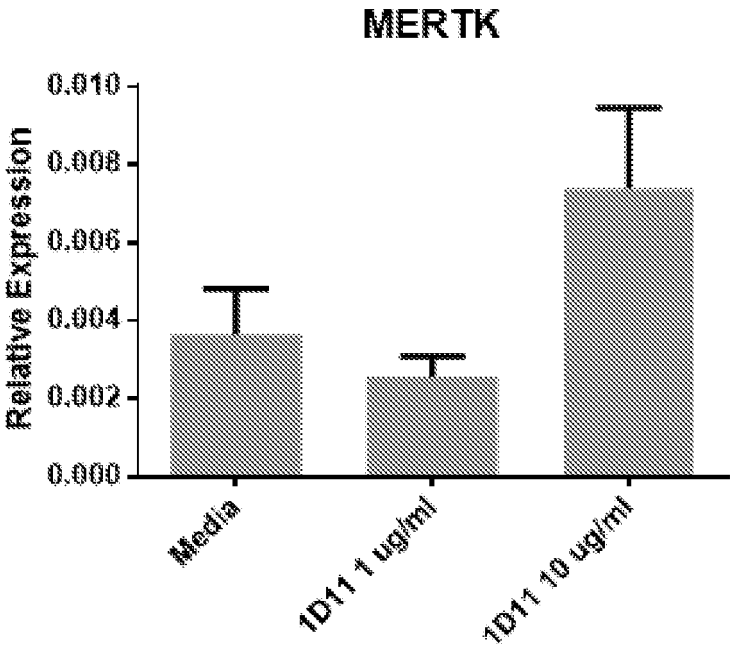


FIG 13E

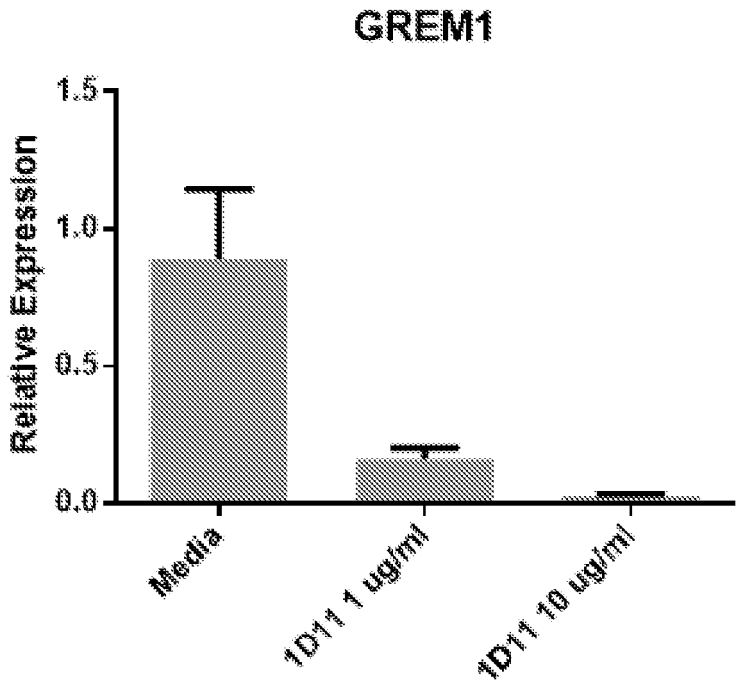


FIG 13F

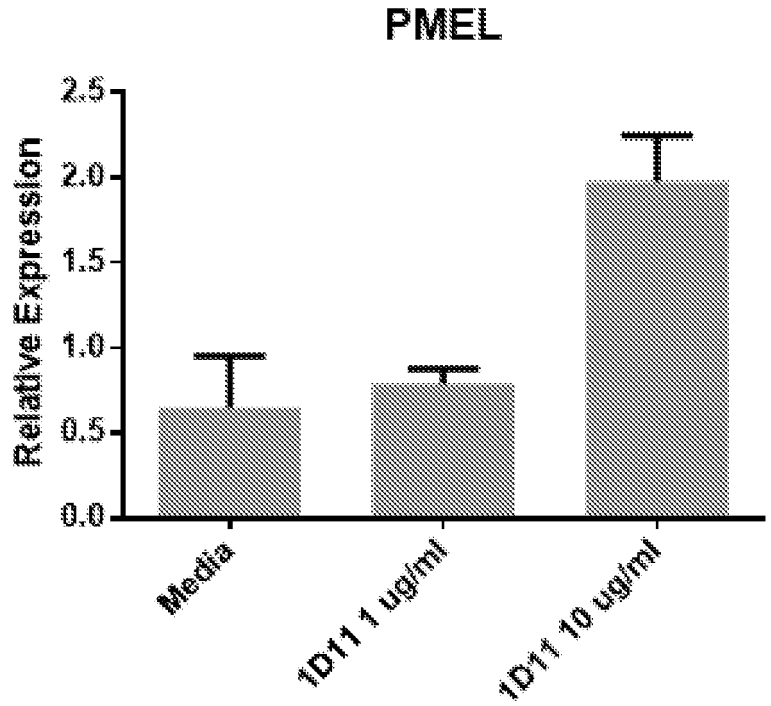


FIG 13G

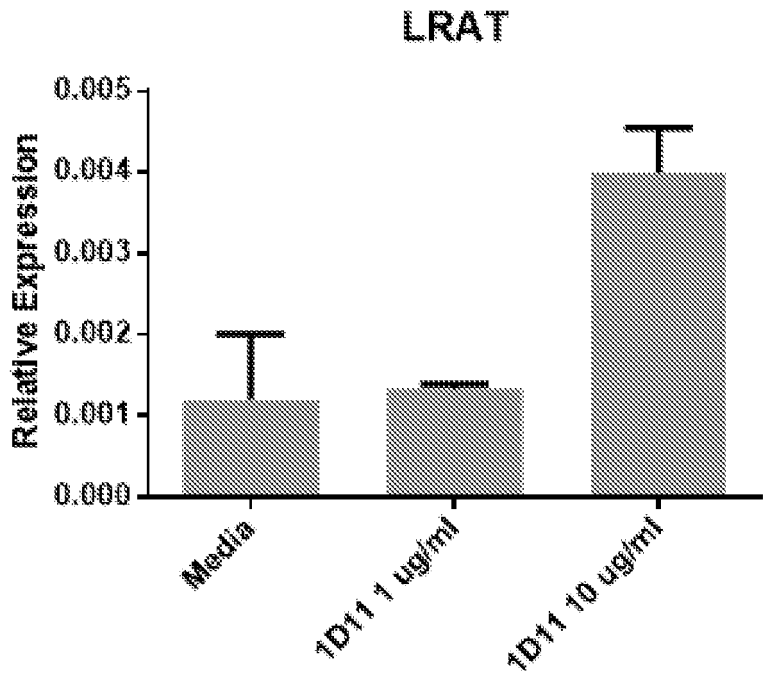


FIG 13H

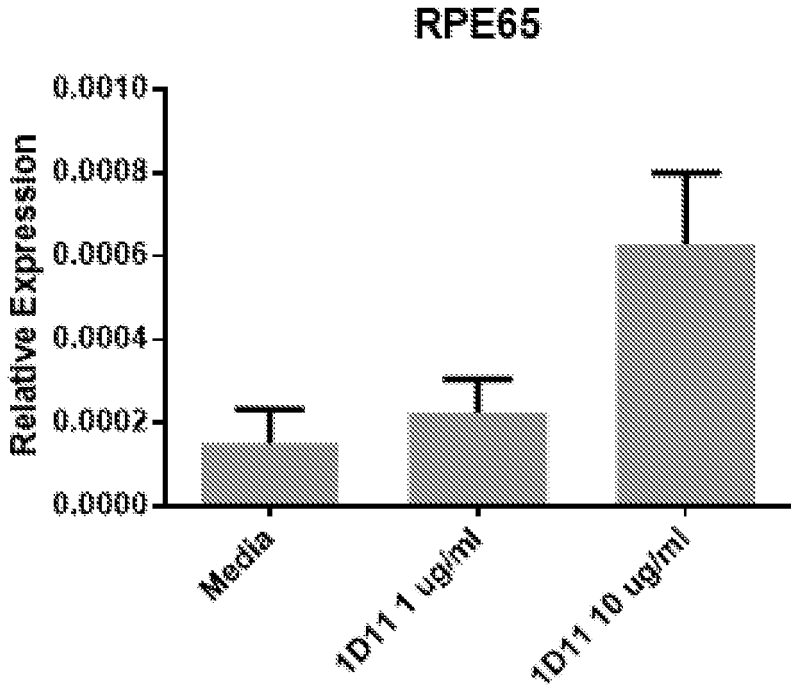


FIG 14A

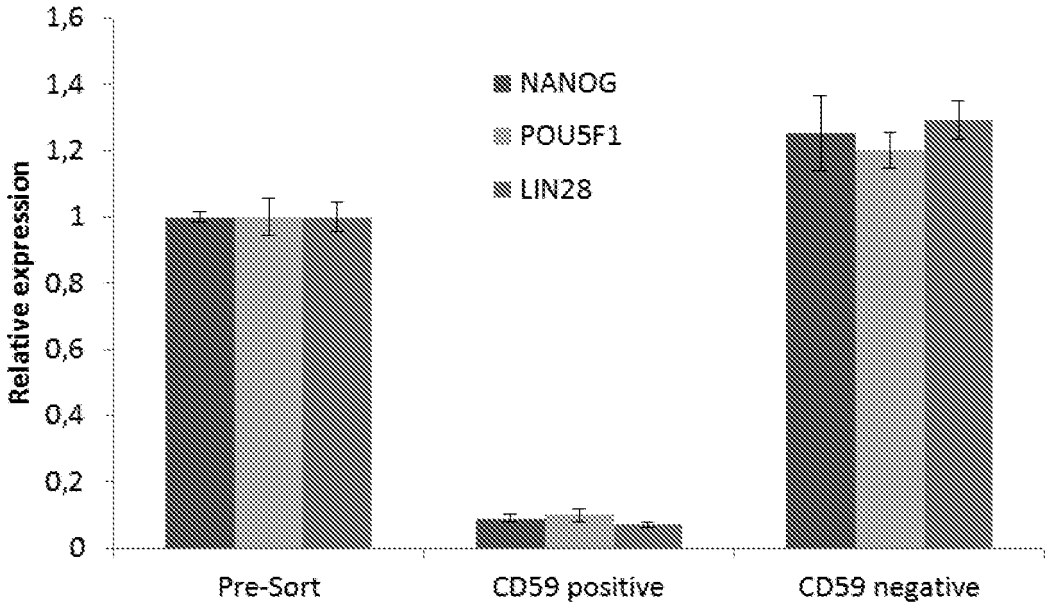


FIG 14B

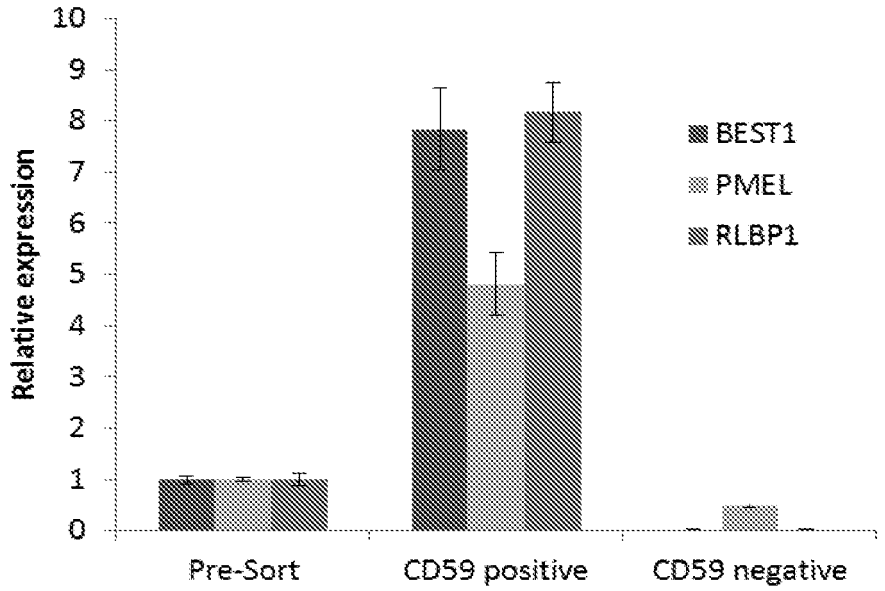


FIG 15A

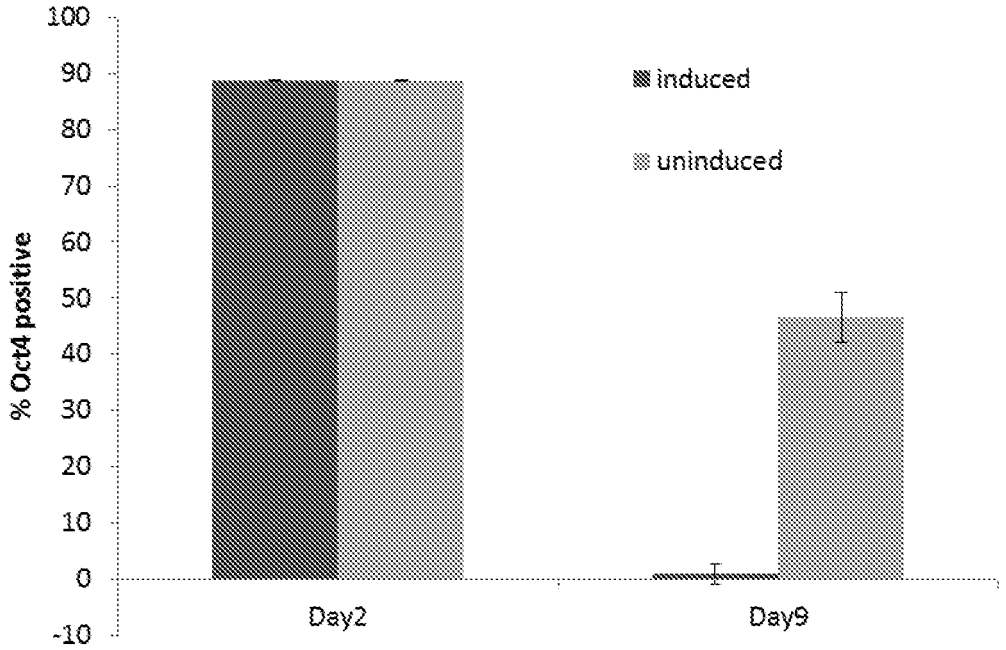


FIG 15B

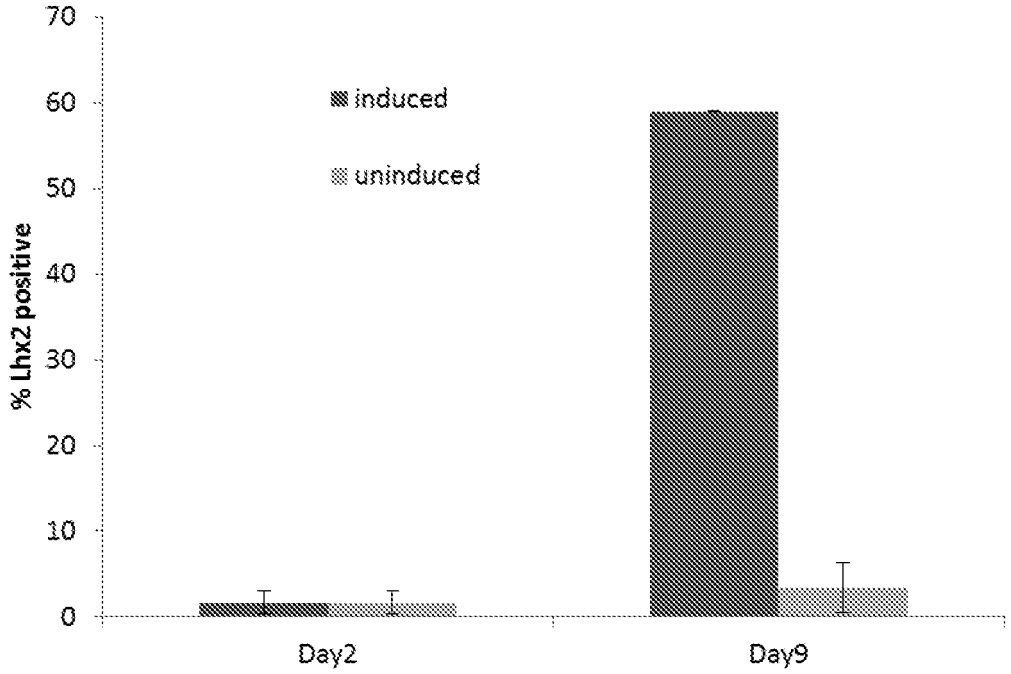


FIG 15C

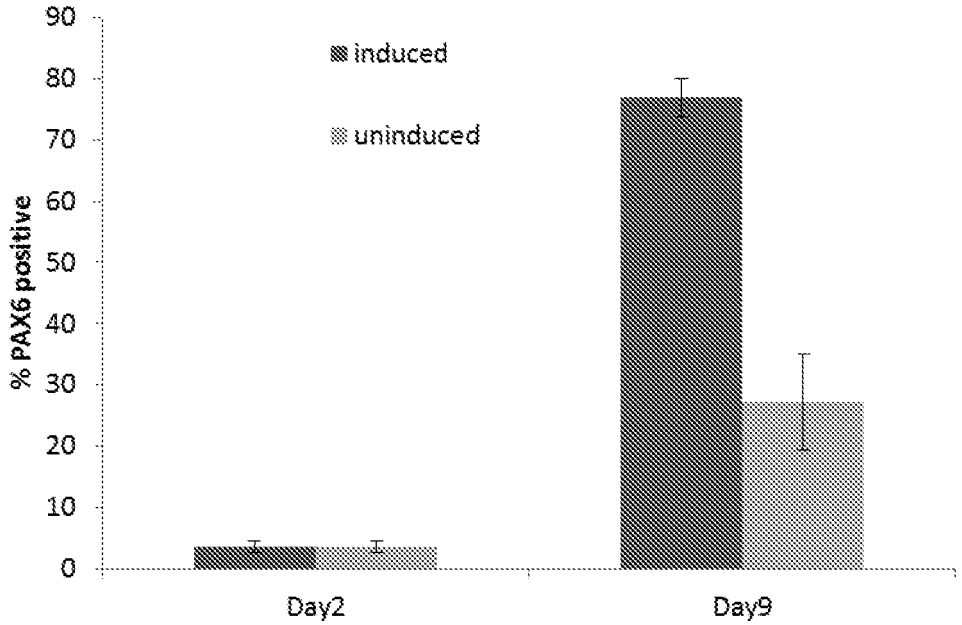


FIG 15D

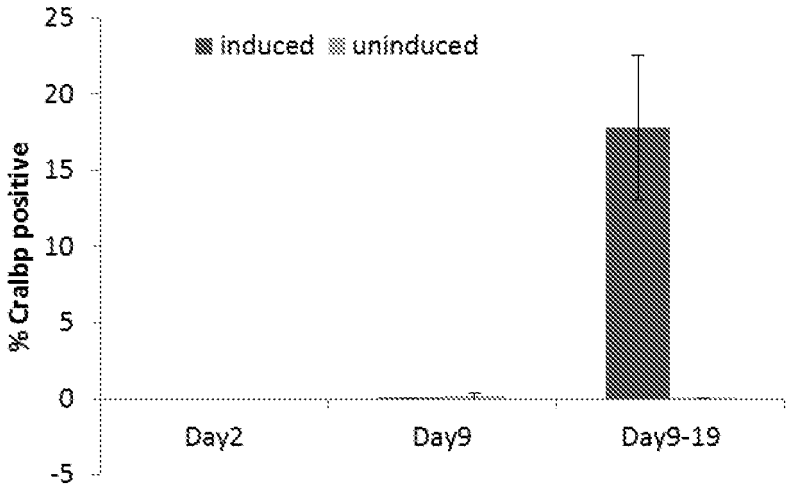


FIG 15E

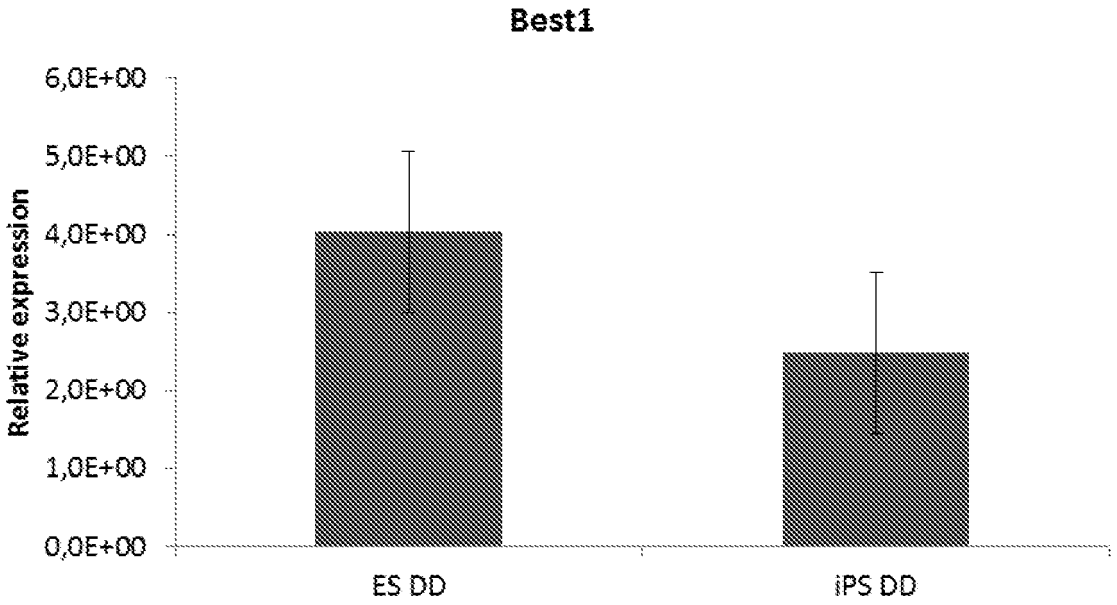


FIG 15F

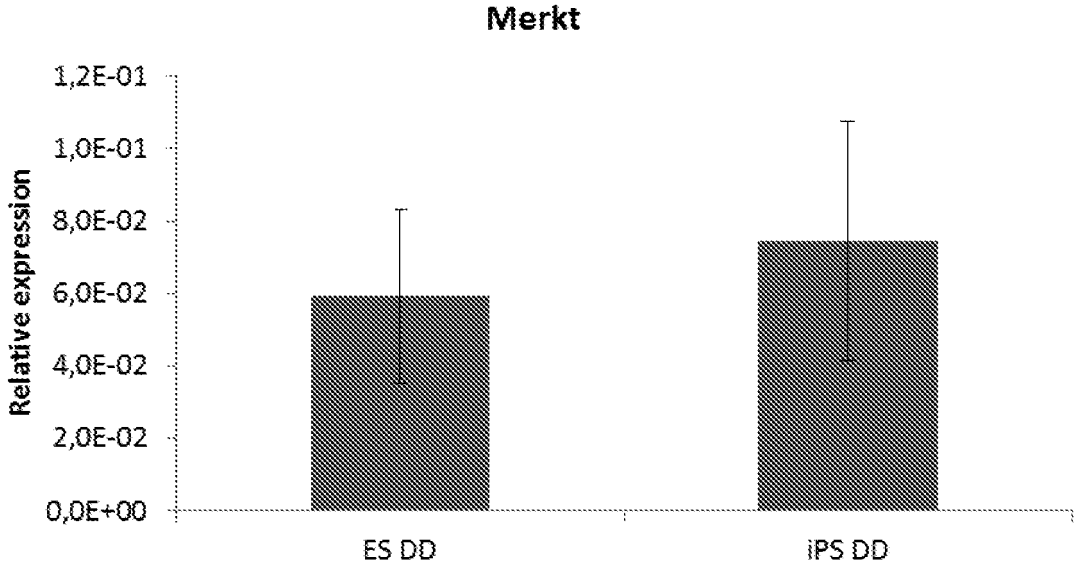
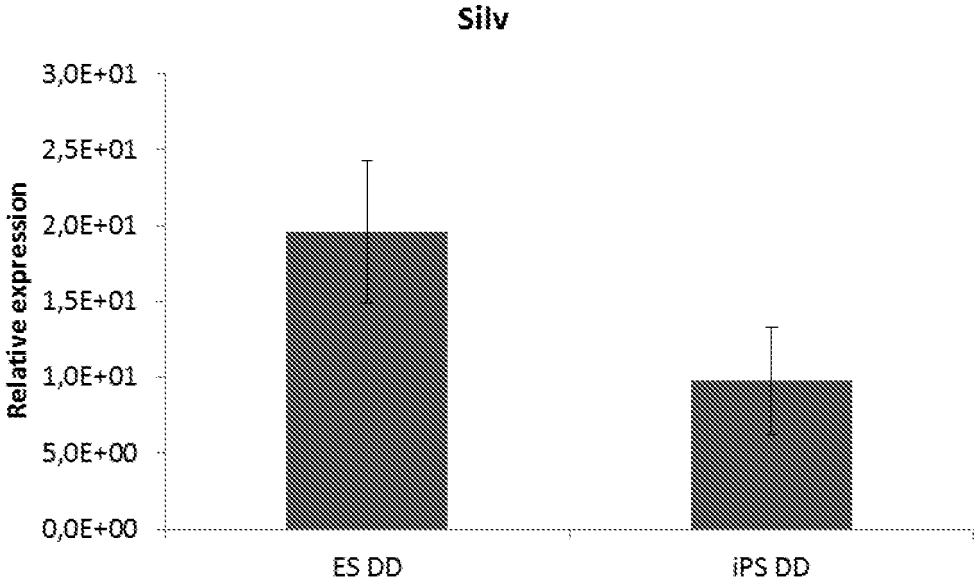


FIG 15G


Silv
3,0E+01
2,5E+01
2,0E+01
1,5E+01
1,0E+01
5,0E+00
0,0E+00
Relative expression
ES DD
iPS DD