Fig. 1

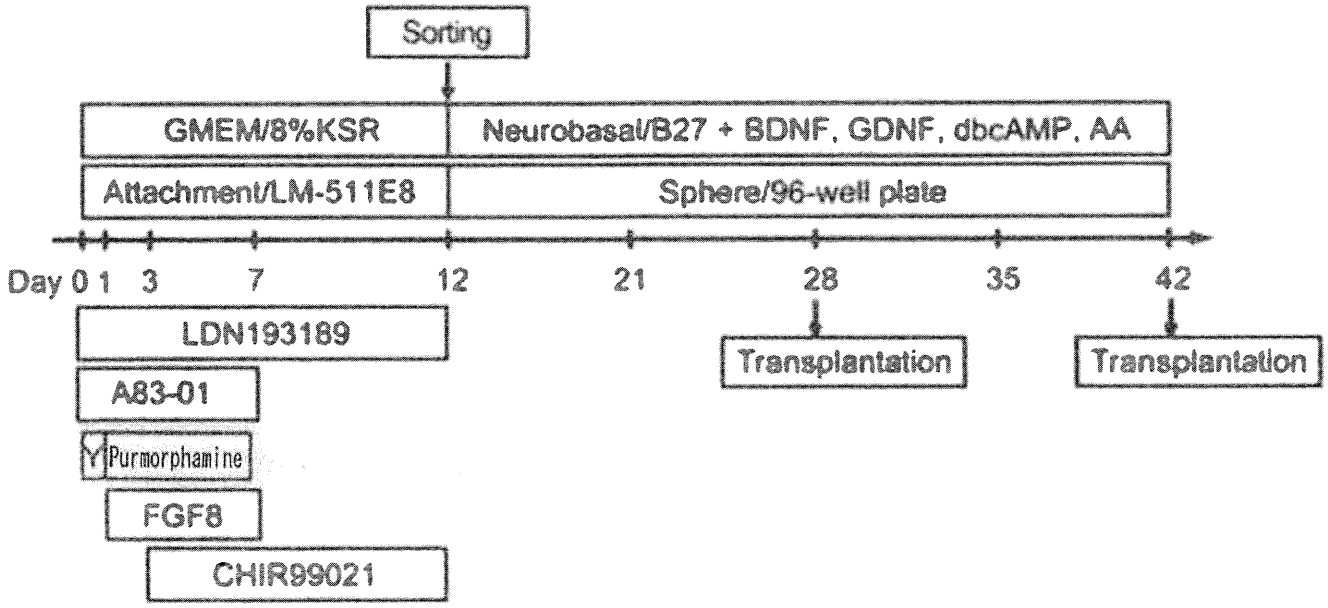


Fig. 2

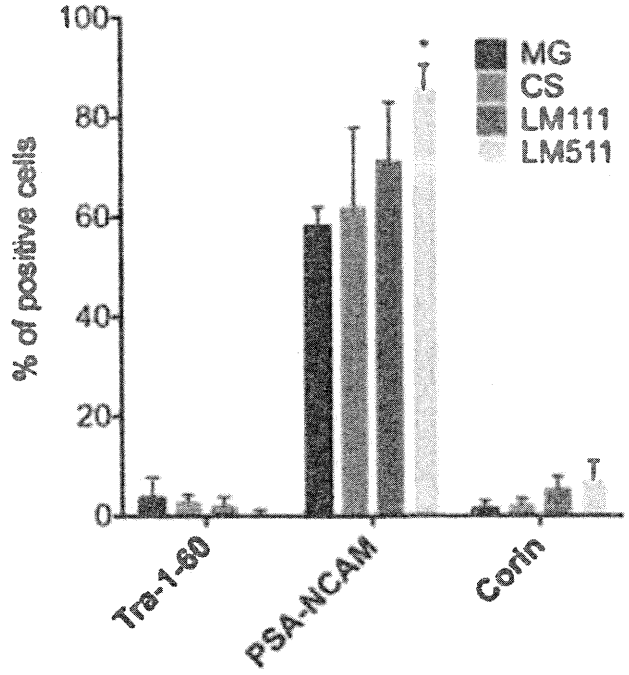


Fig. 3

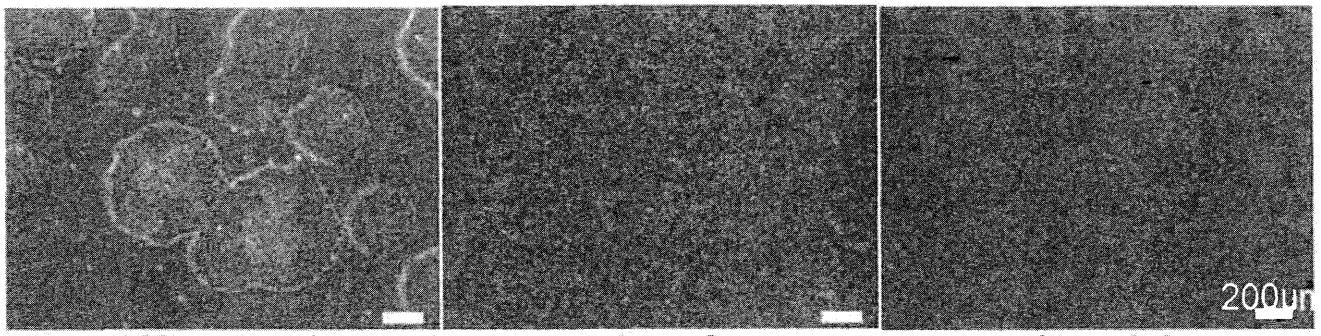


Fig. 4

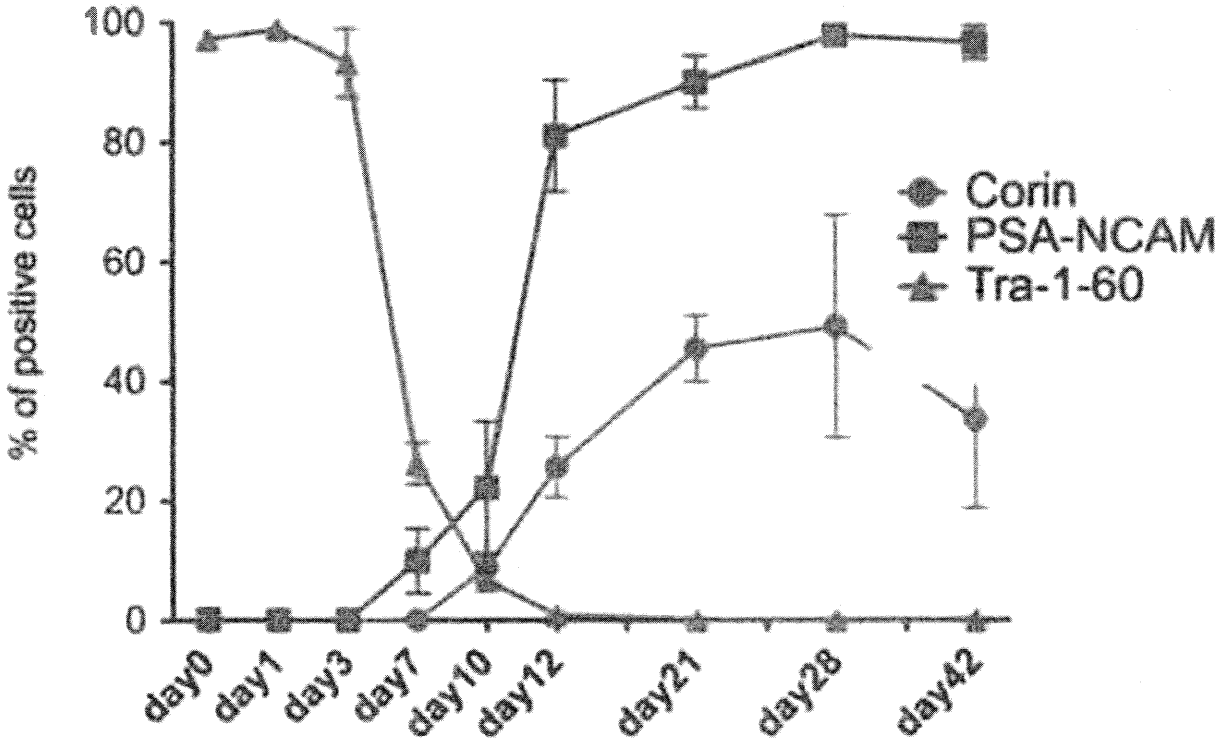
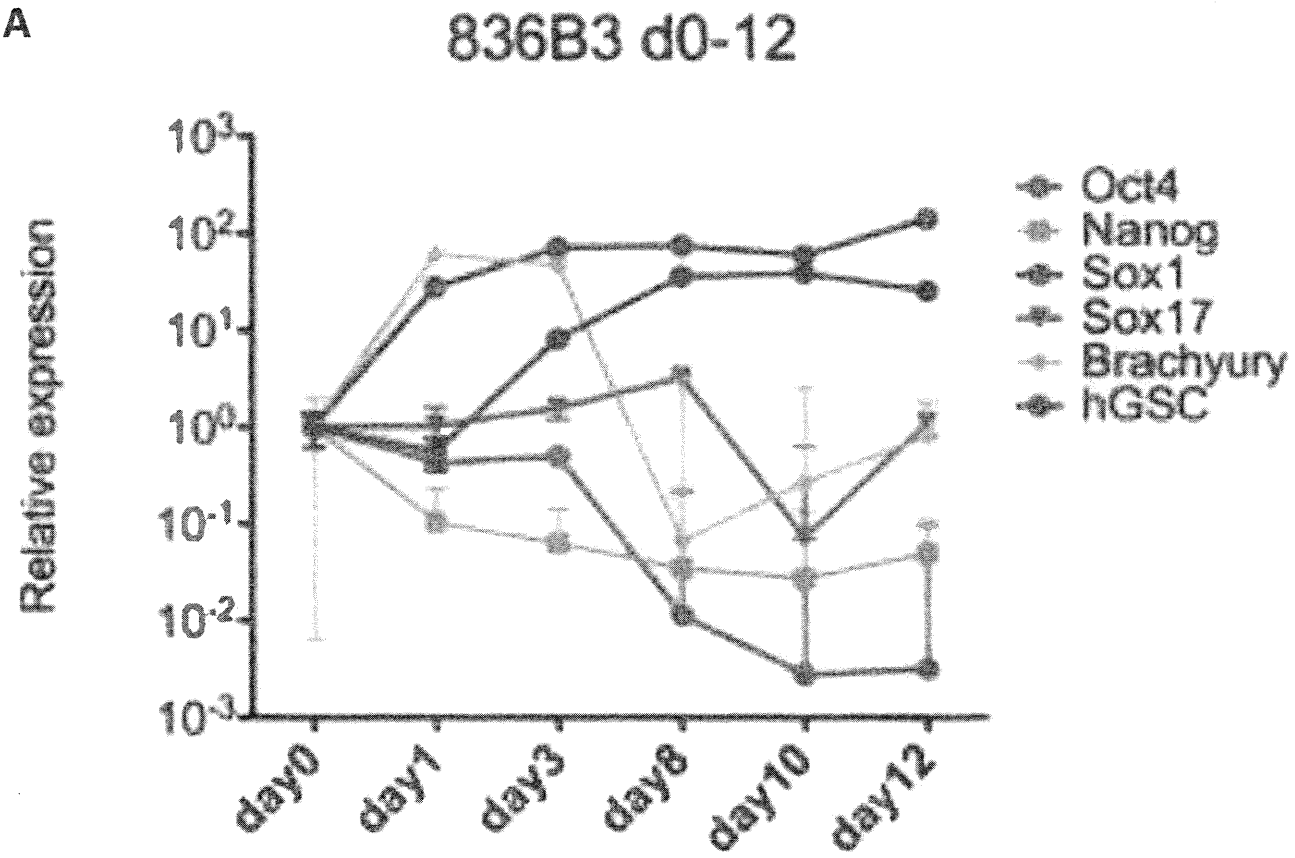

100
80
60
40
20
0
% of positive cells
Corin
PSA-NCAM
Tra-1-60
day0
day1
day3
day7
day10
day12
day21
day28
day42

Fig. 5

A


836B3 d0-12
Relative expression
10^3
10^2
10^1
10^0
10^{-1}
10^{-2}
10^{-3}
day0
day1
day3
day8
day10
day12
Oct4
Nanog
Sox1
Sox17
Brachyury
hGSC

B

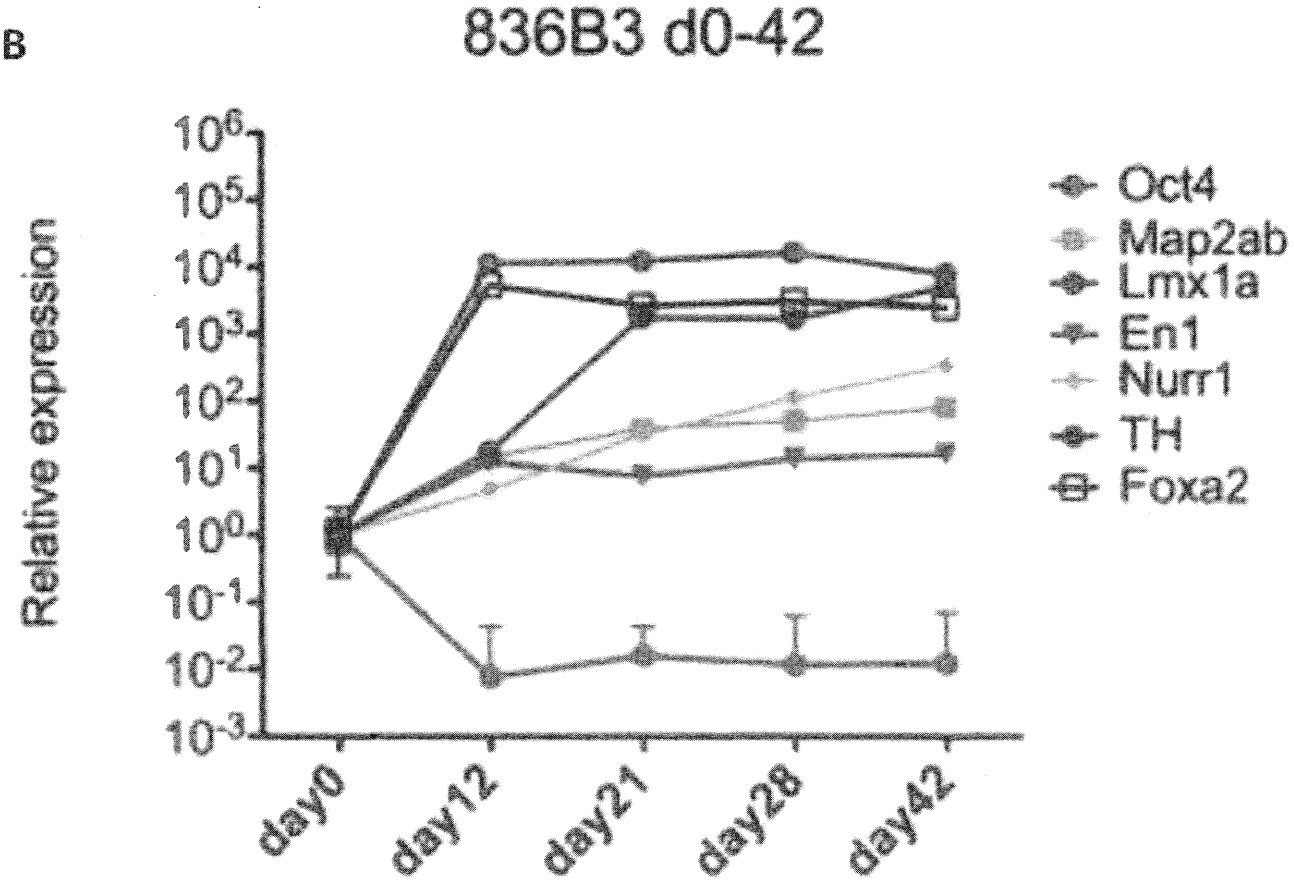

836B3 d0-42
Relative expression
10^6
10^5
10^4
10^3
10^2
10^1
10^0
10^{-1}
10^{-2}
10^{-3}
day0
day12
day21
day28
day42
Oct4
Map2ab
Lmx1a
En1
Nurr1
TH
Foxa2

Fig. 6

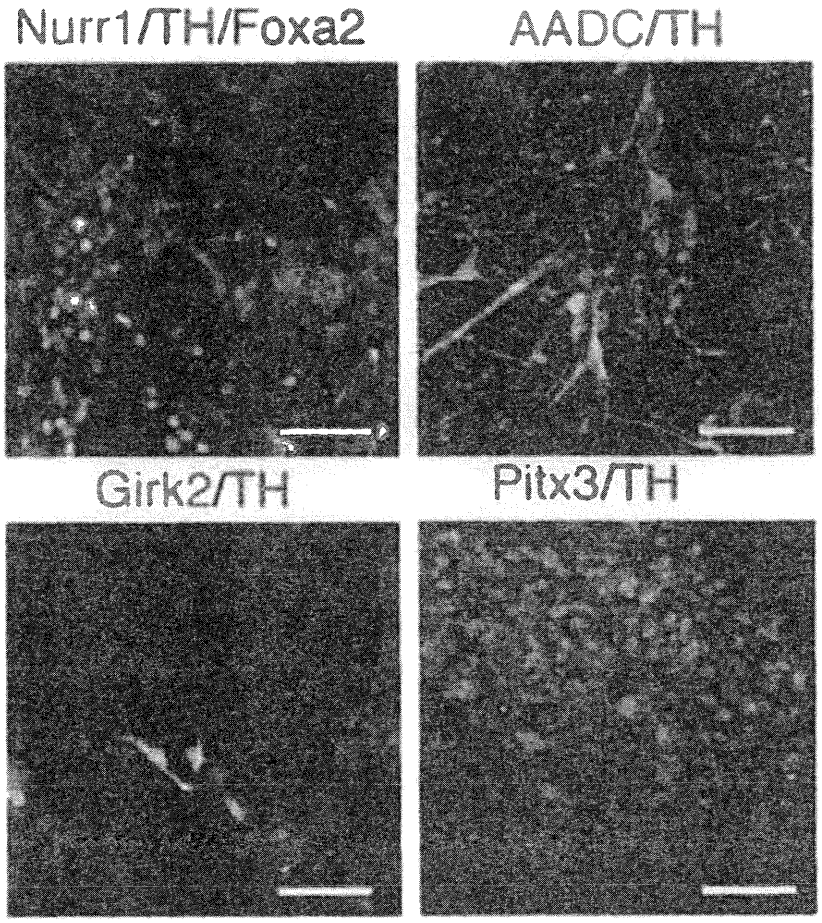
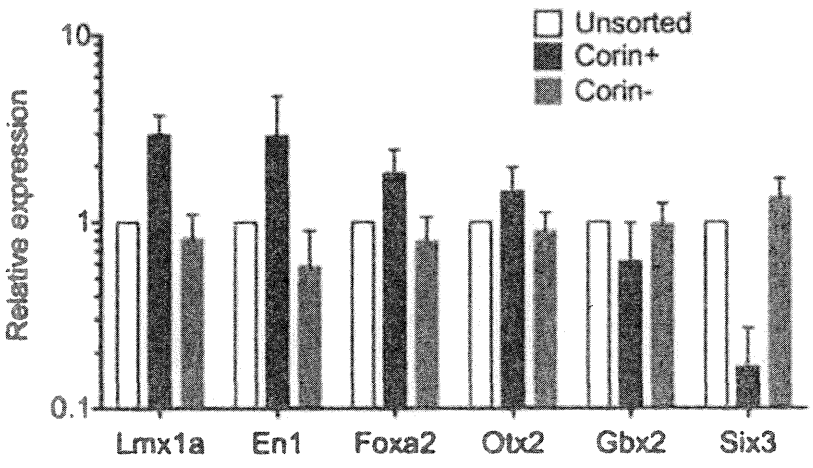


Fig. 7

A


Unsorted
Corin+
Corin-
Relative expression
10
1
0.1
Lmx1a
En1
Foxa2
Otx2
Gbx2
Six3

B

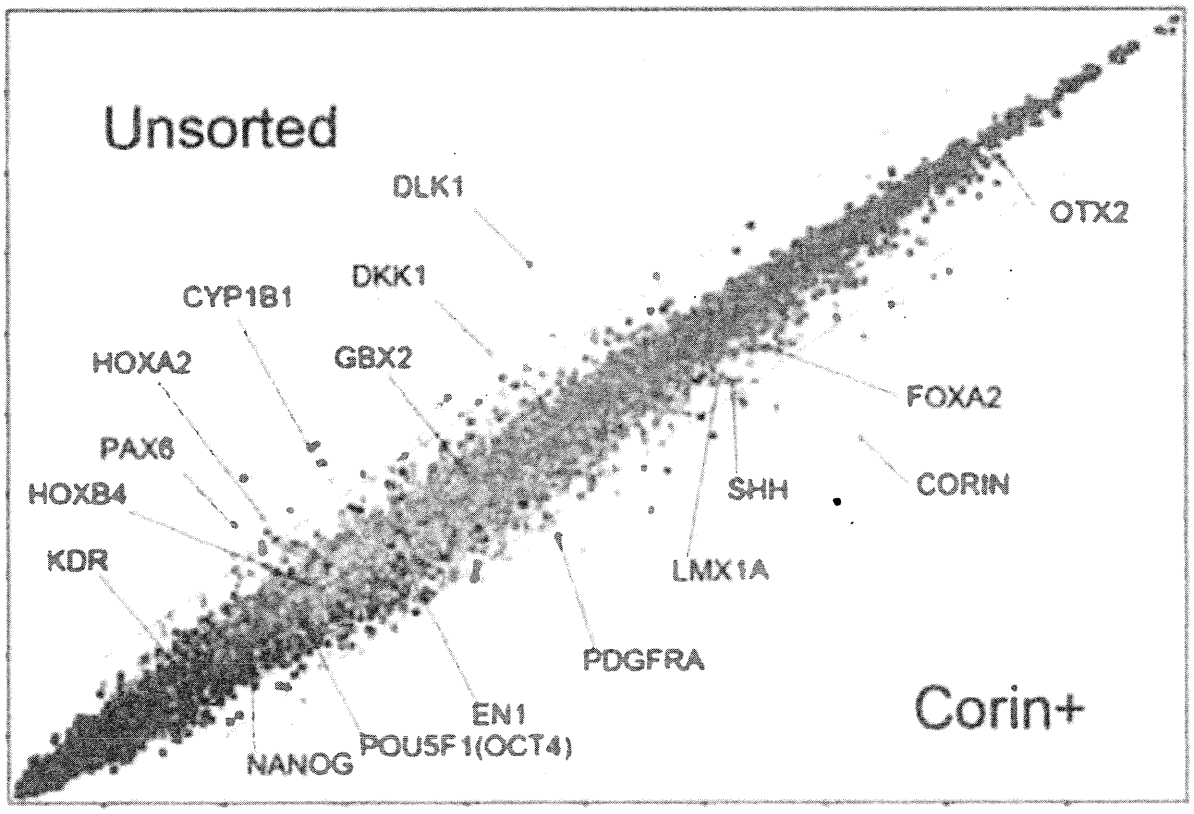

Unsorted
DLK1
OTX2
DKK1
CYP1B1
HOXA2
GBX2
FOXA2
PAX6
HOXB4
SHH
CORIN
KDR
LMX1A
PDGFRA
EN1
POU5F1(OCT4)
NANOG
Corin+

Fig. 8

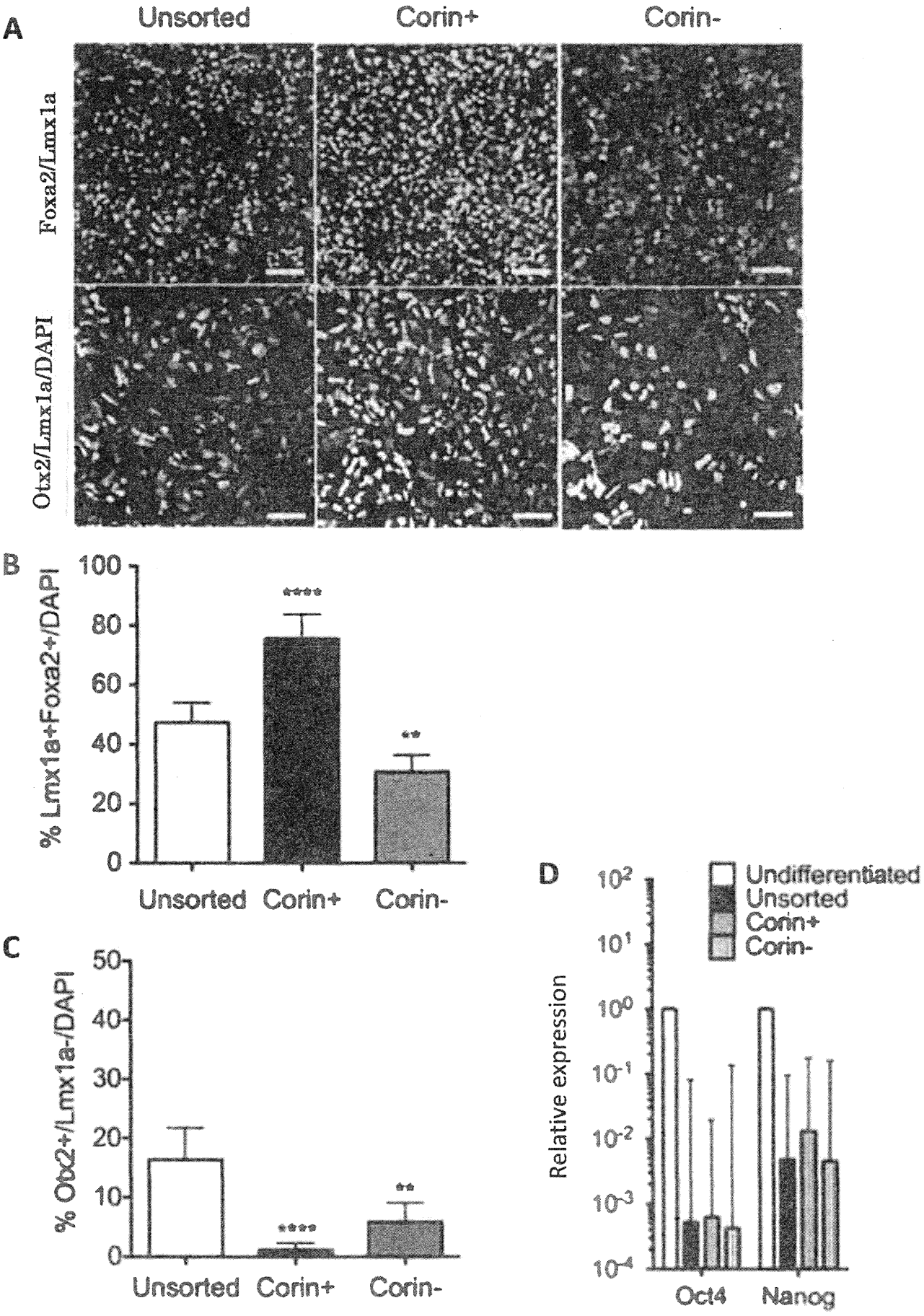

A
Unsorted
Corin+
Corin-
Foxa2/Lmx1a
Otx2/Lmx1a/DAPI
B
% Lmx1a+Foxa2+/DAPI
100
80
60
40
20
0
****
**
Unsorted
Corin+
Corin-
C
% Otx2+/Lmx1a-/DAPI
50
40
30
20
10
0
****
**
Unsorted
Corin+
Corin-
D
Relative expression
10^{2}
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
Undifferentiated
Unsorted
Corin+
Corin-
Oct4
Nanog

Fig. 9

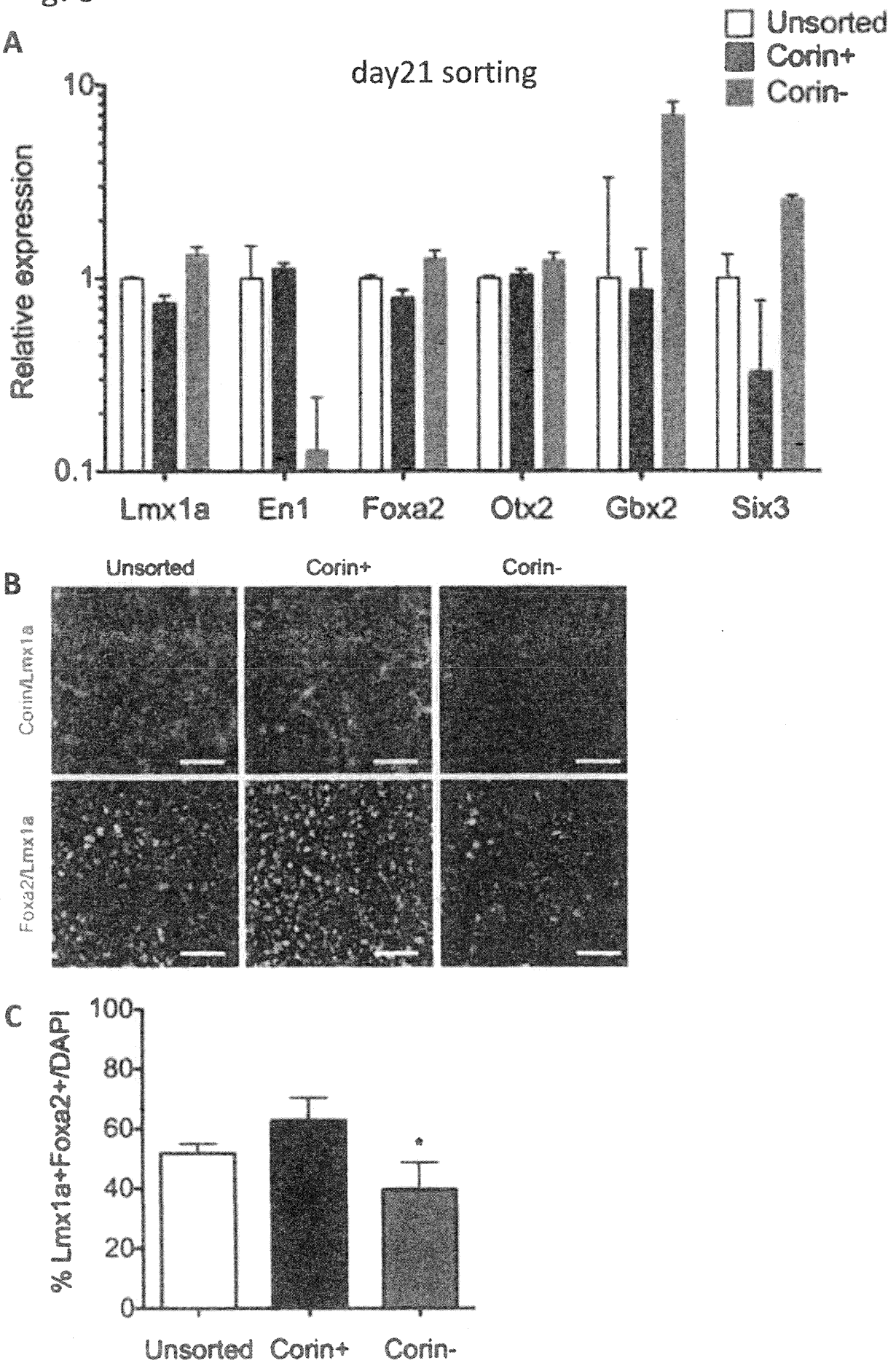
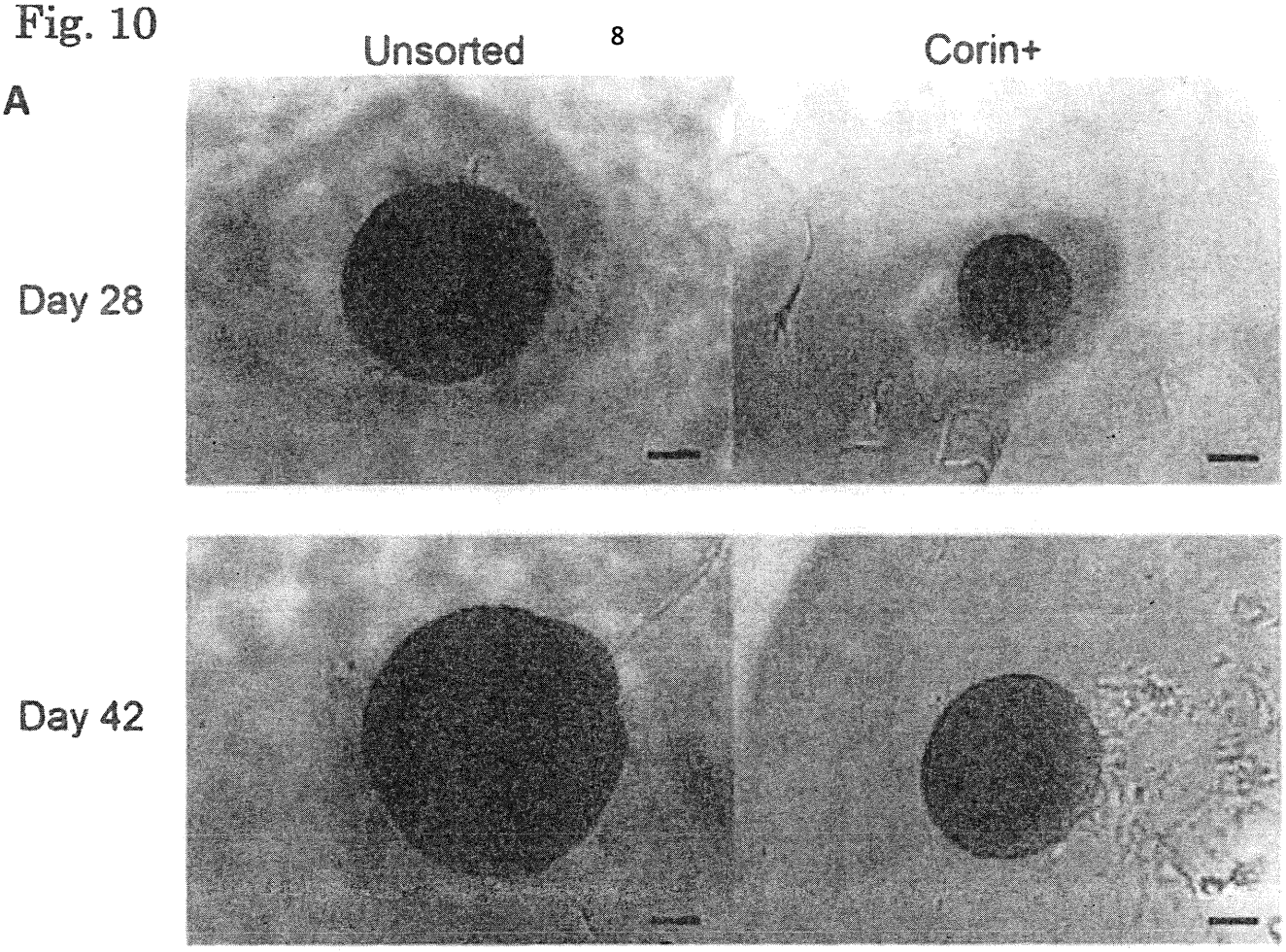

A
day21 sorting
Unsorted
Corin+
Corin-
Relative expression
10
1
0.1
Lmx1a
En1
Foxa2
Otx2
Gbx2
Six3
B
Unsorted
Corin+
Corin-
Corin/Lmx1a
Foxa2/Lmx1a
C
% Lmx1a+Foxa2+/DAPI
100
80
60
40
20
0
*
Unsorted
Corin+
Corin-

Fig. 10

A


Unsorted
Corin+
Day 28
Day 42

B

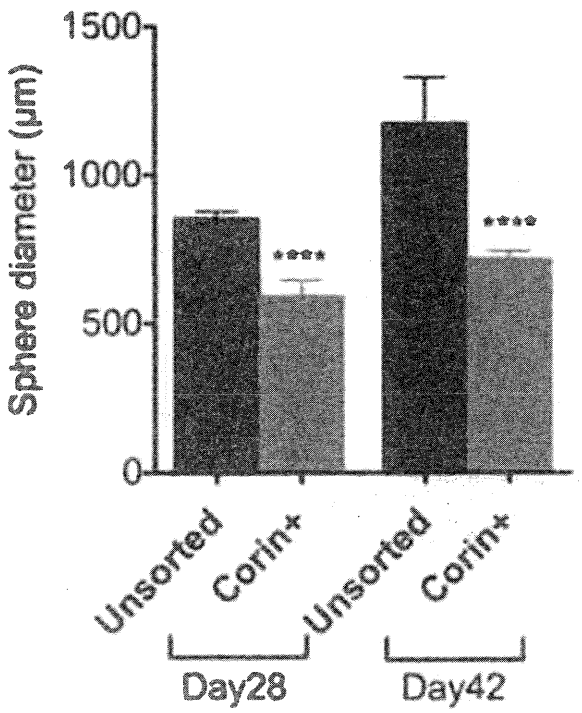
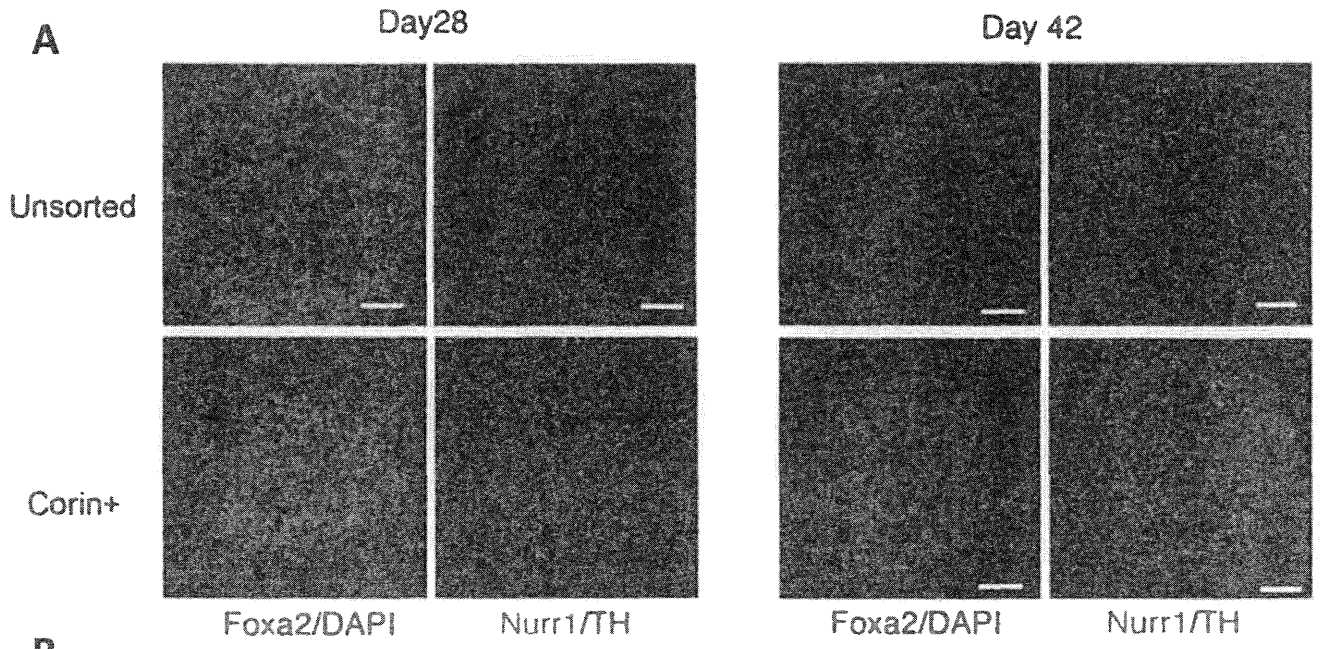
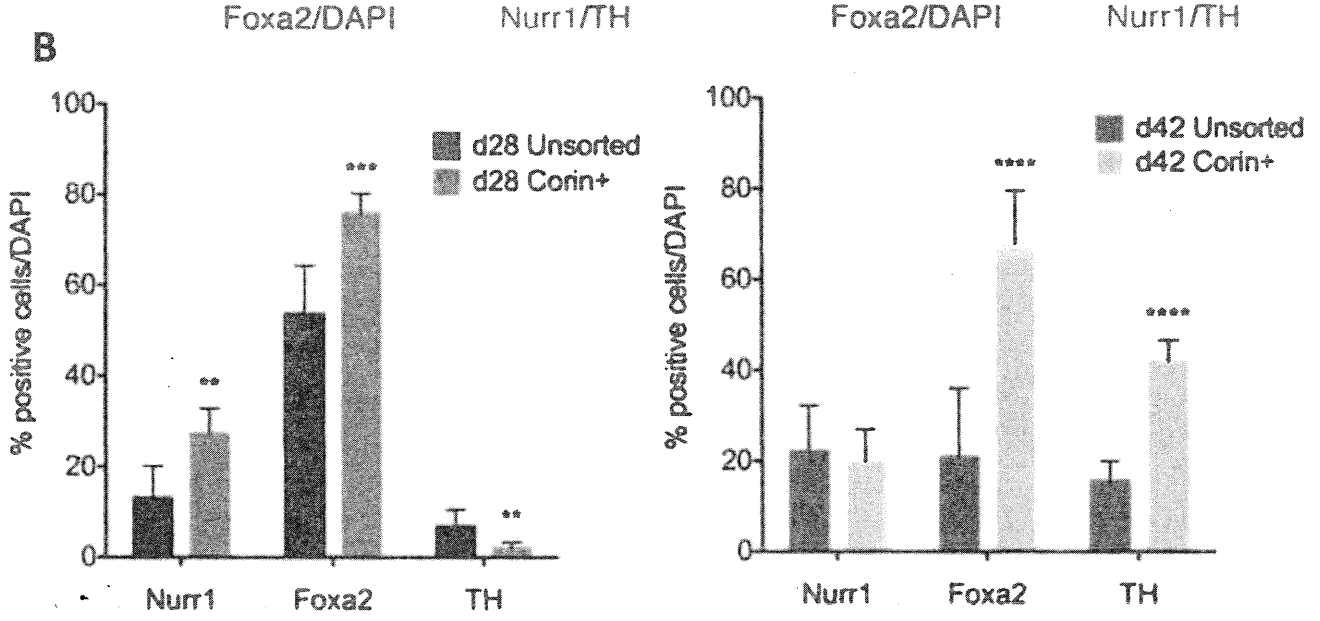

Sphere diameter (µm)
1500
1000
500
0
****
****
Unsorted
Corin+
Unsorted
Corin+
Day28
Day42

Fig. 11


A
Day28
Day 42
Unsorted
Corin+
Foxa2/DAPI
Nurr1/TH
Foxa2/DAPI
Nurr1/TH


B
% positive cells/DAPI
d28 Unsorted
d28 Corin+
Nurr1
Foxa2
TH
% positive cells/DAPI
d42 Unsorted
d42 Corin+
Nurr1
Foxa2
TH

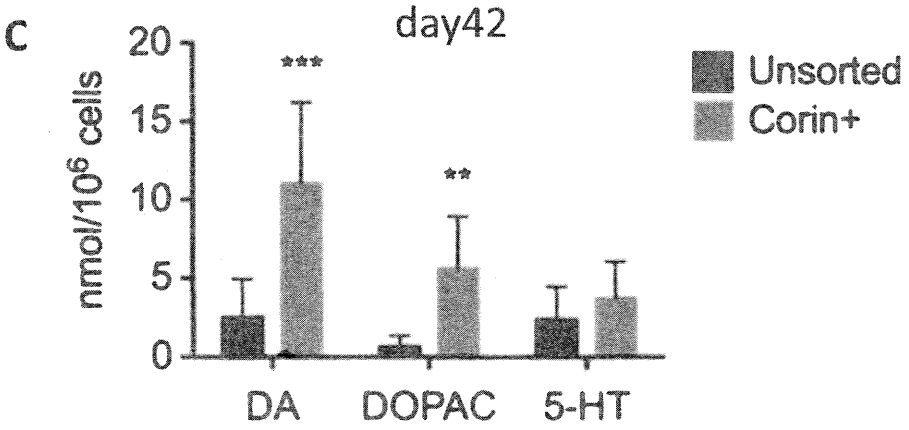

C
day42
nmol/10^6 cells
Unsorted
Corin+
DA
DOPAC
5-HT

Fig. 12

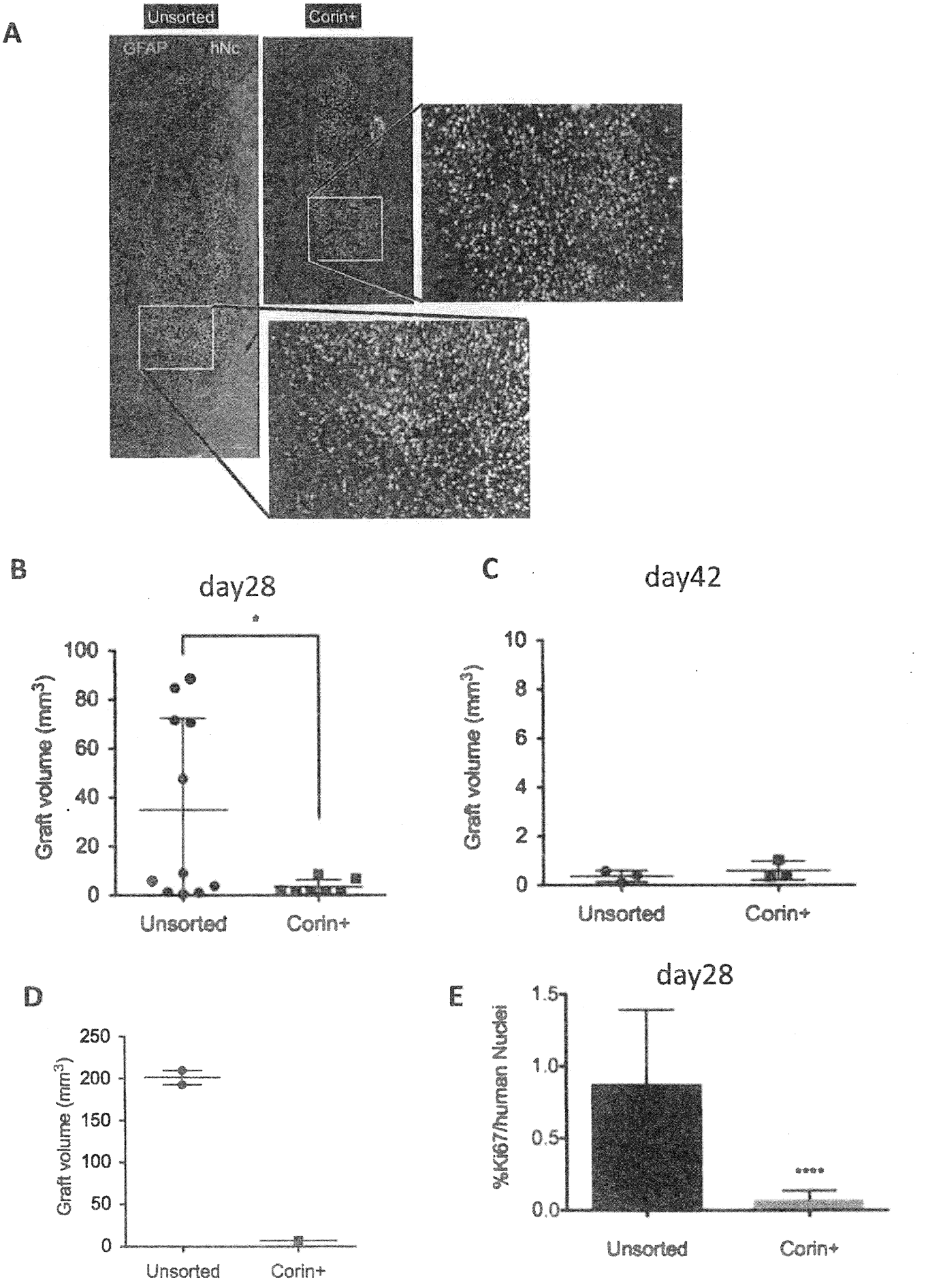

A
Unsorted
Corin+
GFAP
hNc
B
day28
Graft volume (mm3)
100
80
60
40
20
0
Unsorted
Corin+
C
day42
Graft volume (mm3)
10
8
6
4
2
0
Unsorted
Corin+
D
Graft volume (mm3)
250
200
150
100
50
0
Unsorted
Corin+
E
day28
%Ki67/human Nuclei
1.5
1.0
0.5
0.0
****
Unsorted
Corin+

Fig. 13

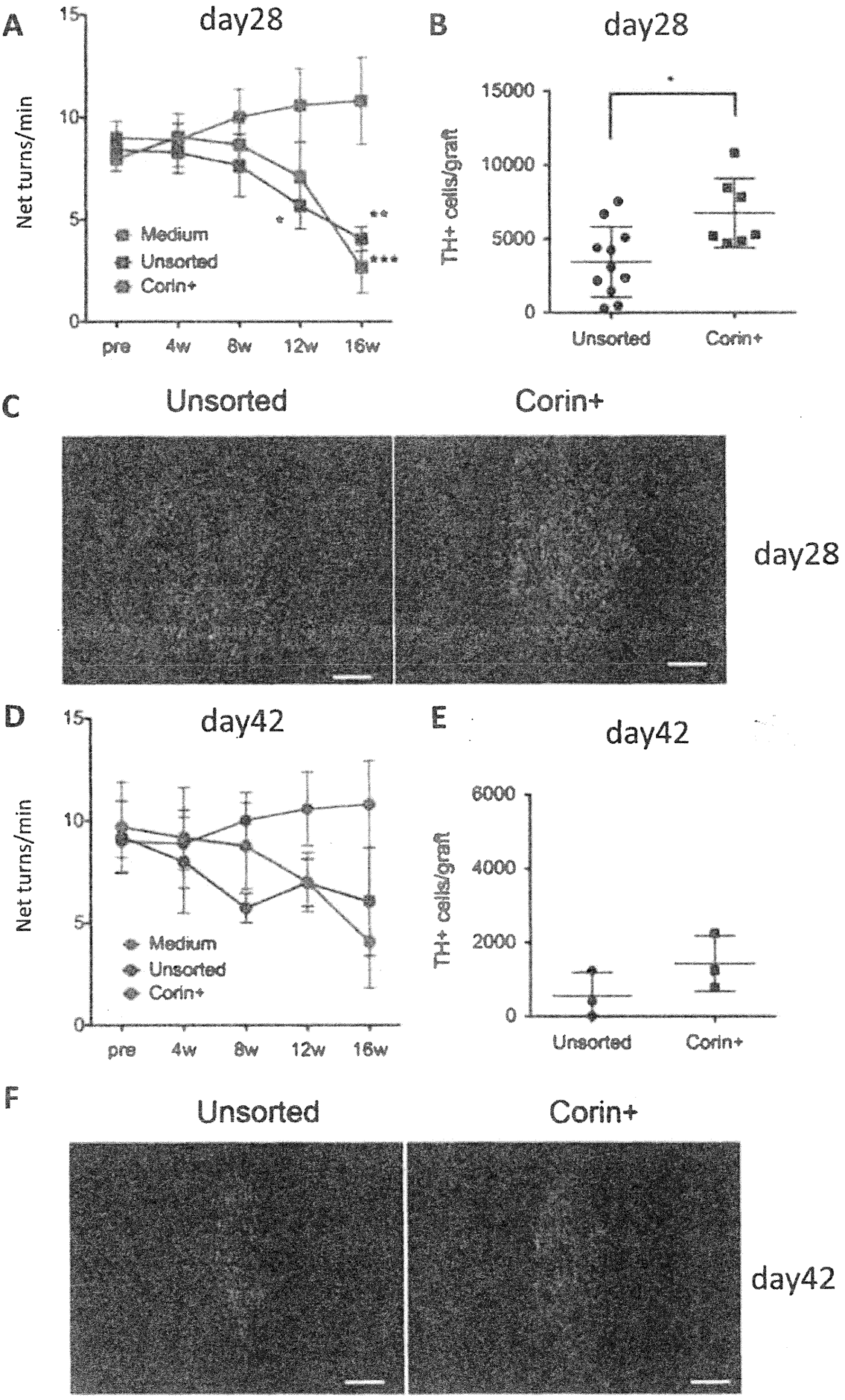

A
day28
Net turns/min
15
10
5
0
Medium
Unsorted
Corin+
*
**
***
pre
4w
8w
12w
16w
B
day28
TH+ cells/graft
15000
10000
5000
0
*
Unsorted
Corin+
C
Unsorted
Corin+
day28
D
day42
Net turns/min
15
10
5
0
Medium
Unsorted
Corin+
pre
4w
8w
12w
16w
E
day42
TH+ cells/graft
6000
4000
2000
0
Unsorted
Corin+
F
Unsorted
Corin+
day42

Fig. 14

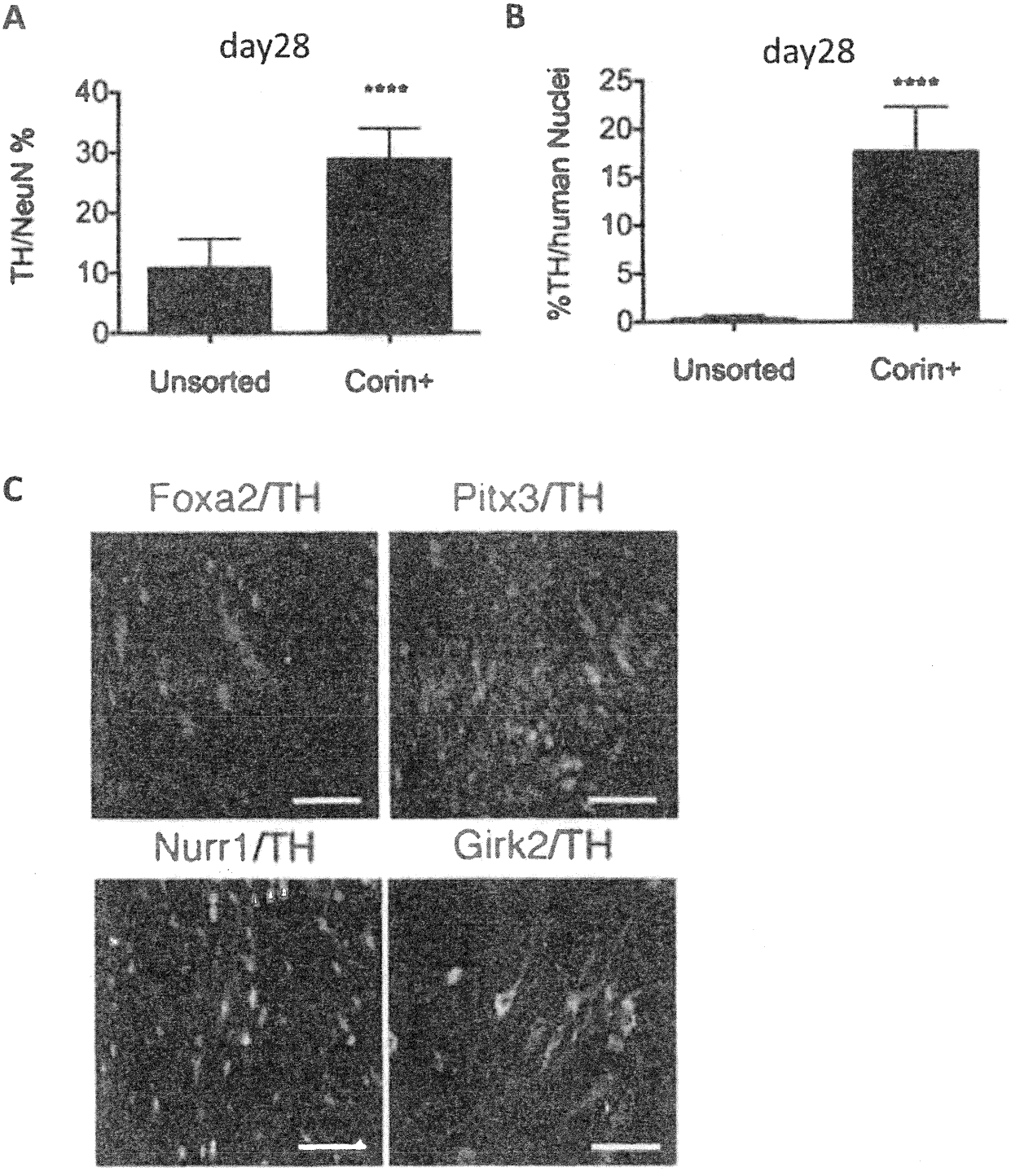

A
day28
TH/NeuN %
40
30
20
10
0
****
Unsorted
Corin+
B
day28
%TH/human Nuclei
25
20
15
10
5
0
****
Unsorted
Corin+
C
Foxa2/TH
Pitx3/TH
Nurr1/TH
Girk2/TH

Fig. 15

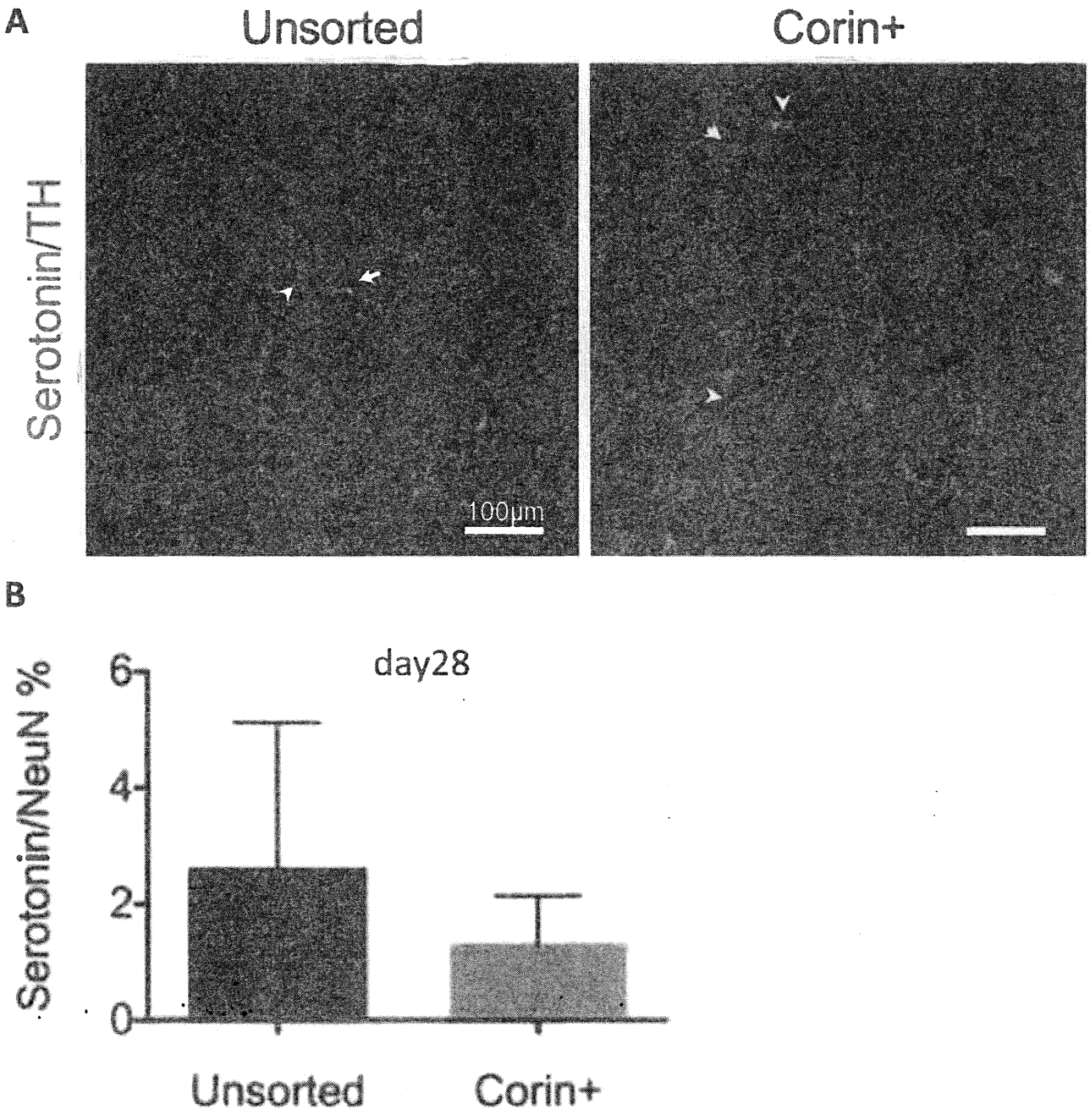
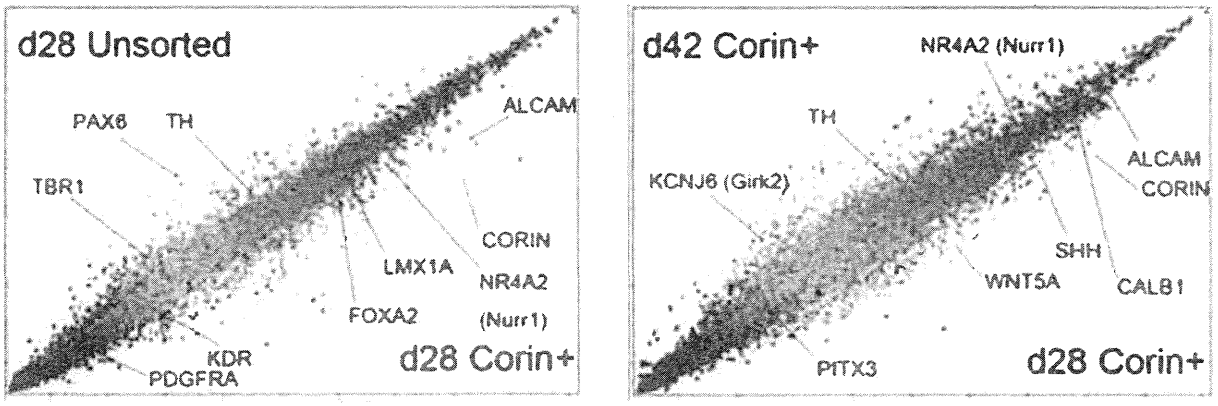
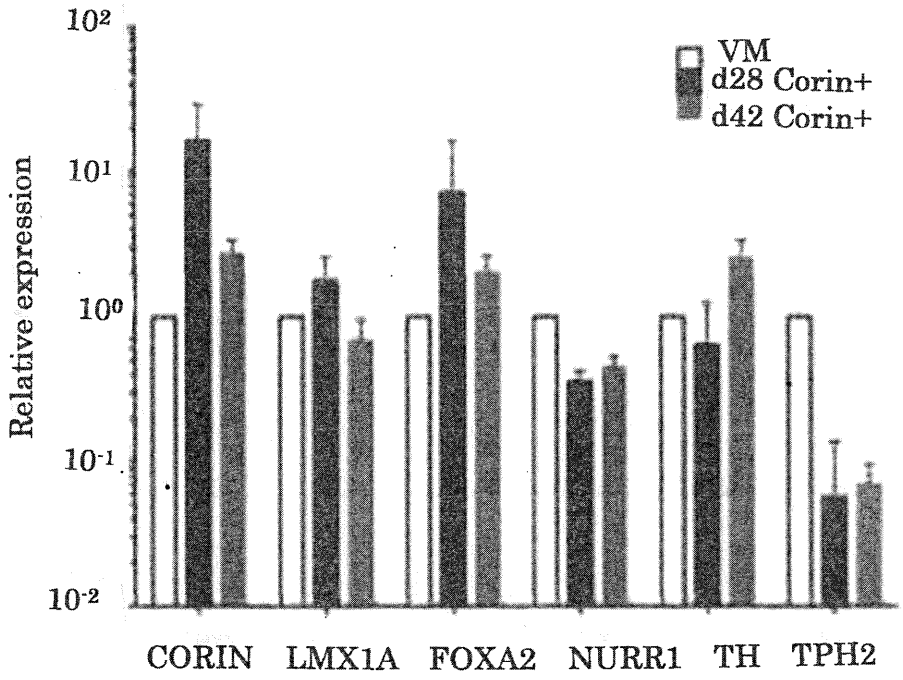

A
Unsorted
Corin+
Serotonin/TH
100μm
B
day28
Serotonin/NeuN %
6
4
2
0
Unsorted
Corin+

Fig. 16

A


d28 Unsorted
PAX6
TH
ALCAM
TBR1
CORIN
LMX1A
NR4A2
(Nurr1)
FOXA2
KDR
PDGFRA
d28 Corin+
d42 Corin+
NR4A2 (Nurr1)
TH
ALCAM
CORIN
KCNJ6 (Girk2)
SHH
WNT5A
CALB1
PITX3
d28 Corin+

B


Relative expression
10^2
10^1
10^0
10^{-1}
10^{-2}
VM
d28 Corin+
d42 Corin+
CORIN
LMX1A
FOXA2
NURR1
TH
TPH2

C

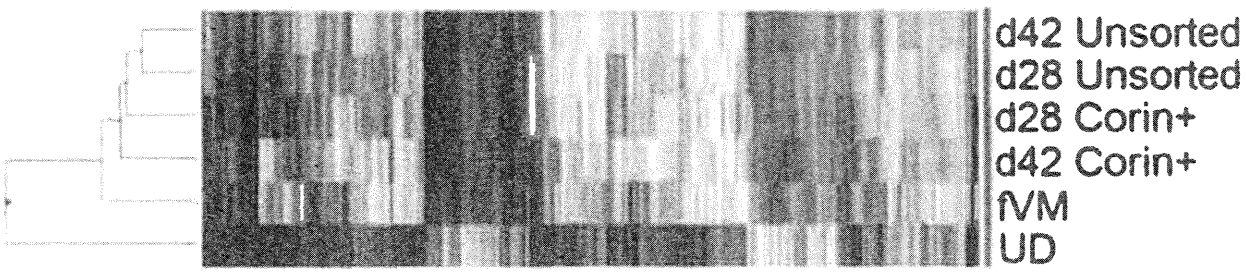

d42 Unsorted
d28 Unsorted
d28 Corin+
d42 Corin+
fVM
UD

Fig. 17

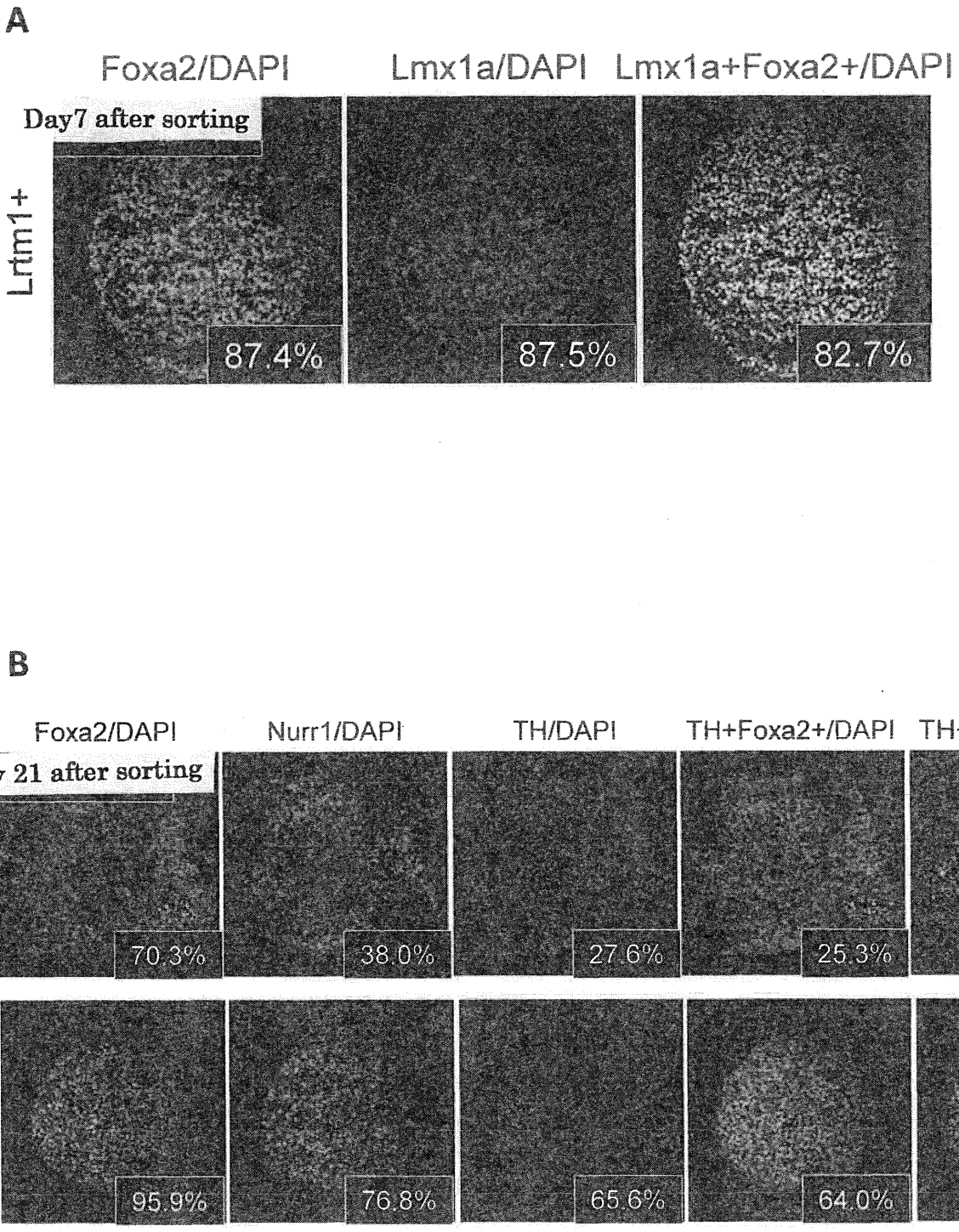

A
Foxa2/DAPI
Lmx1a/DAPI
Lmx1a+Foxa2+/DAPI
Day7 after sorting
Lrtm1+
87.4%
87.5%
82.7%
B
Foxa2/DAPI
Nurr1/DAPI
TH/DAPI
TH+Foxa2+/DAPI
TH+Nurr1+/DAPI
Day 21 after sorting
Unsort
70.3%
38.0%
27.6%
25.3%
24.5%
Lrtm1+
95.9%
76.8%
65.6%
64.0%
57.7%

Fig. 18

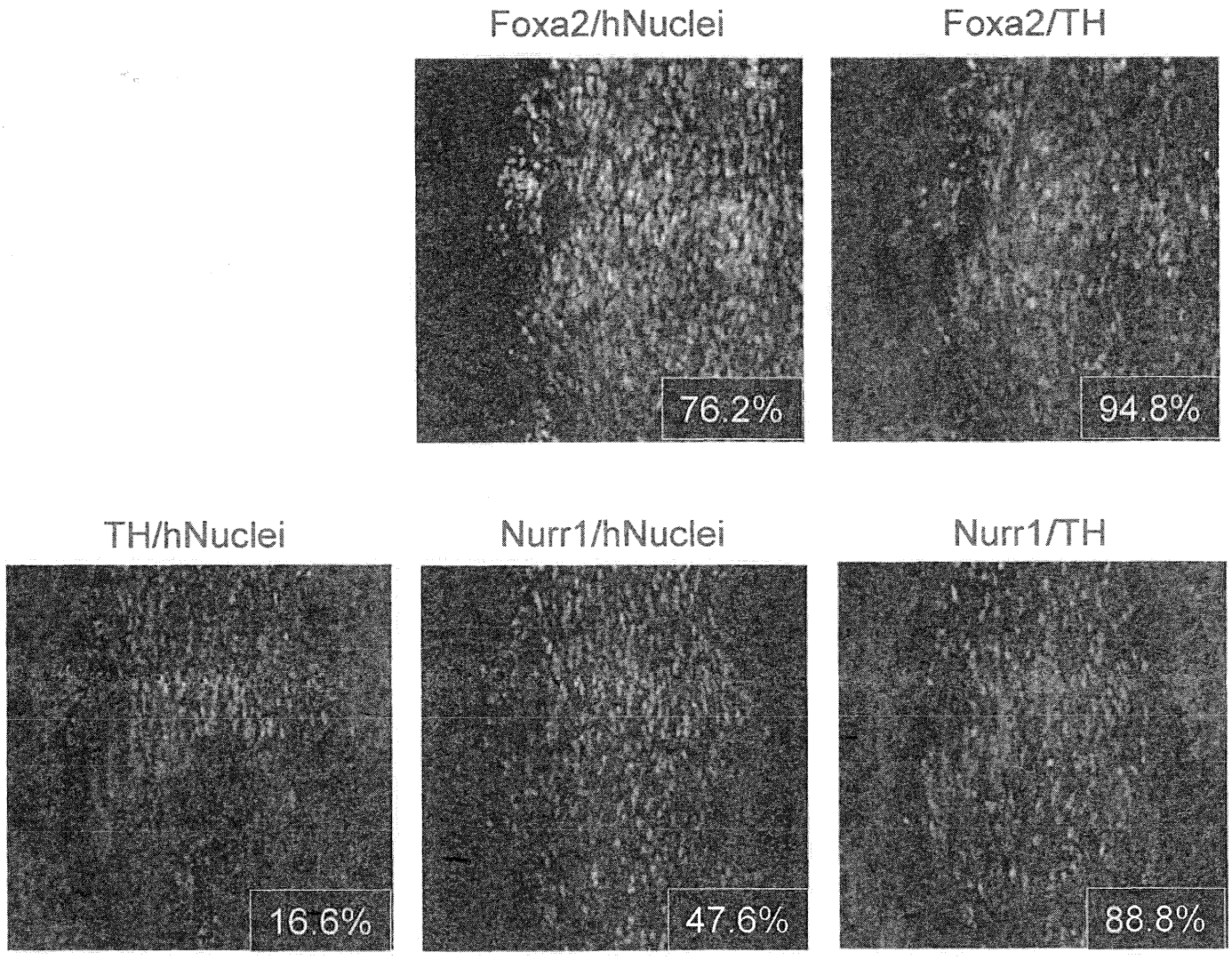

Foxa2/hNuclei
76.2%
Foxa2/TH
94.8%
TH/hNuclei
16.6%
Nurr1/hNuclei
47.6%
Nurr1/TH
88.8%

Fig. 19-1

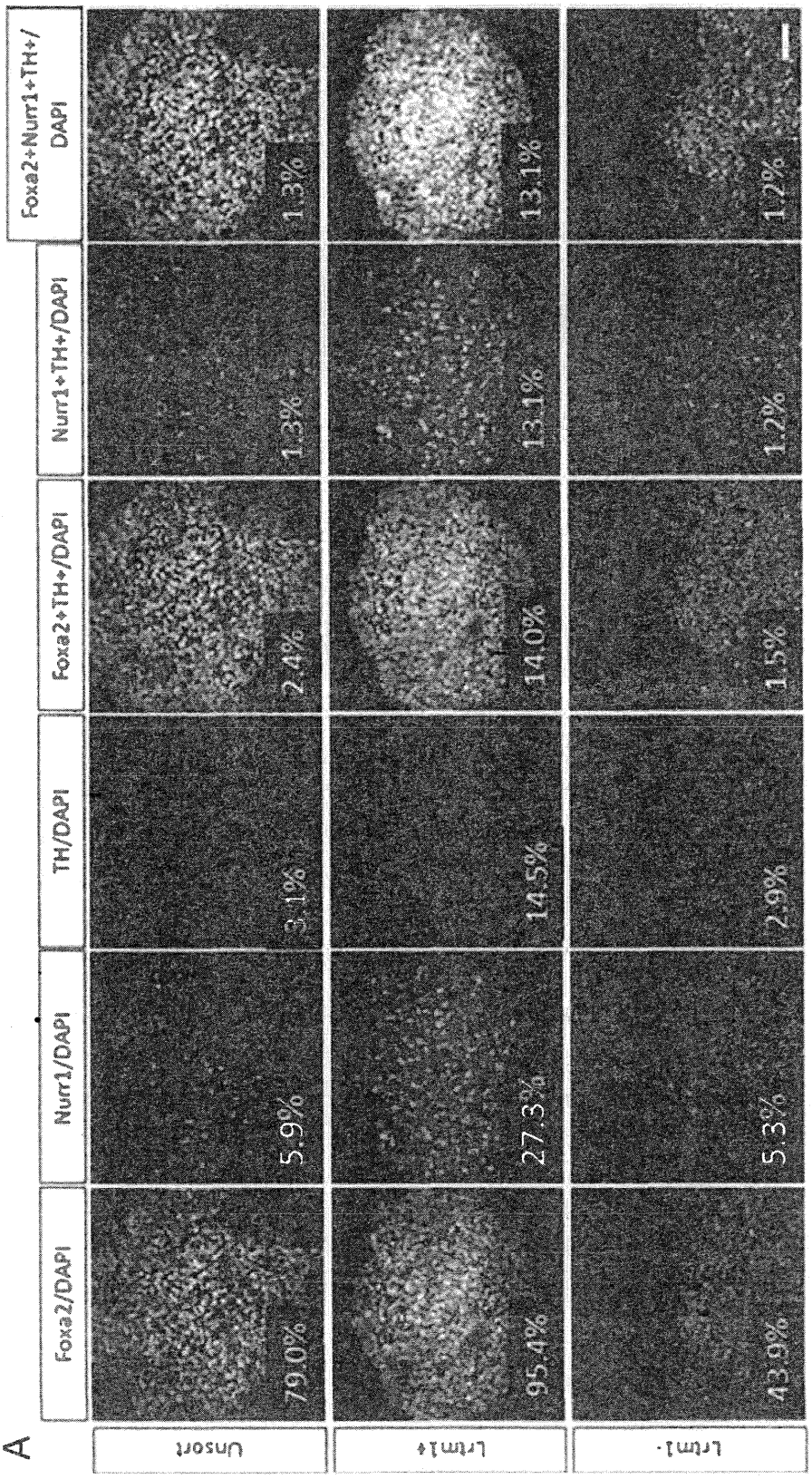

A
Foxa2/DAPI
Nurr1/DAPI
TH/DAPI
Foxa2+TH+/DAPI
Nurr1+TH+/DAPI
Foxa2+Nurr1+TH+/DAPI
Unsort
Lrtm1+
Lrtm1-
79.0%
5.9%
3.1%
2.4%
1.3%
1.3%
95.4%
27.3%
14.5%
14.0%
13.1%
13.1%
43.9%
5.3%
2.9%
1.5%
1.2%
1.2%

Fig. 19-2

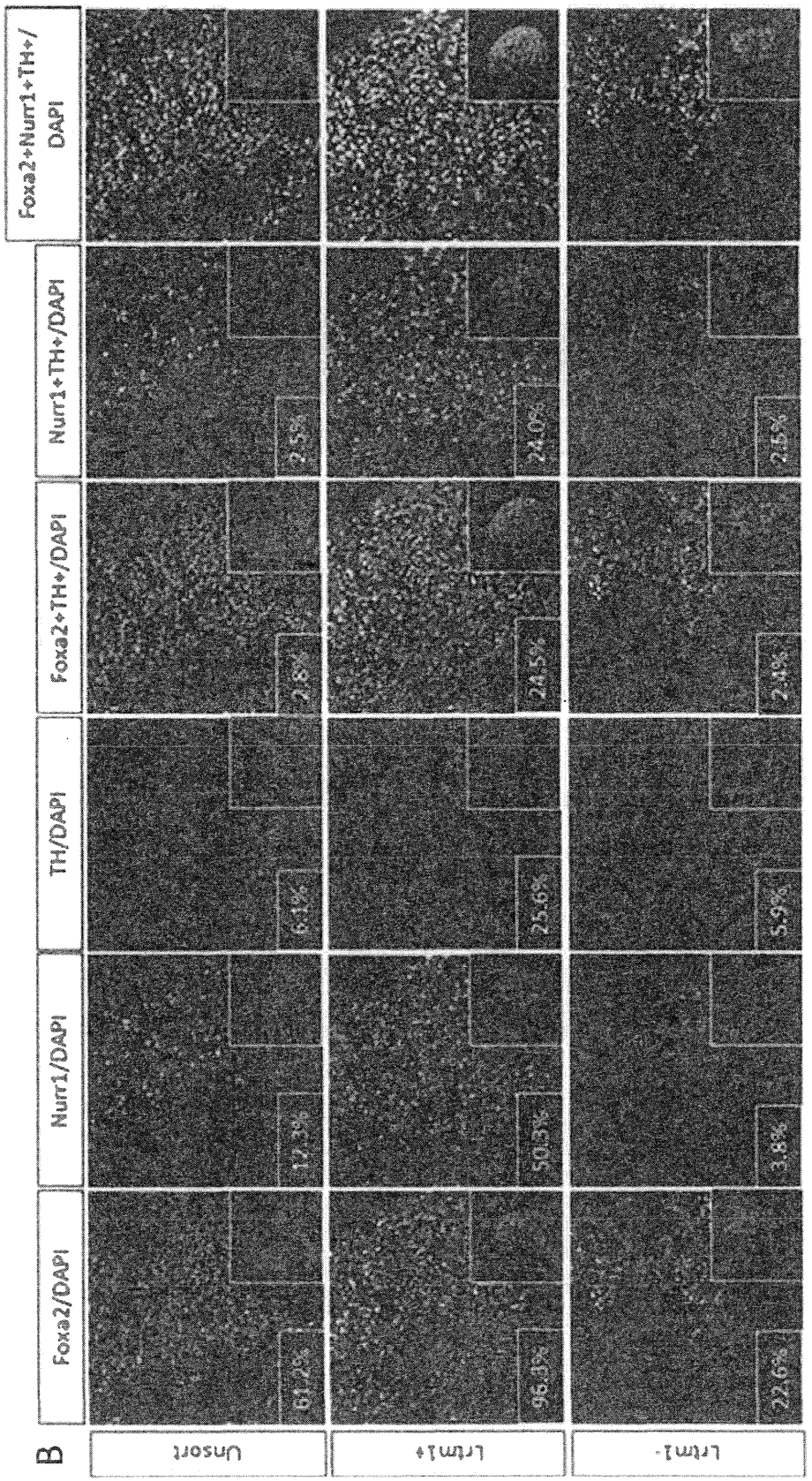
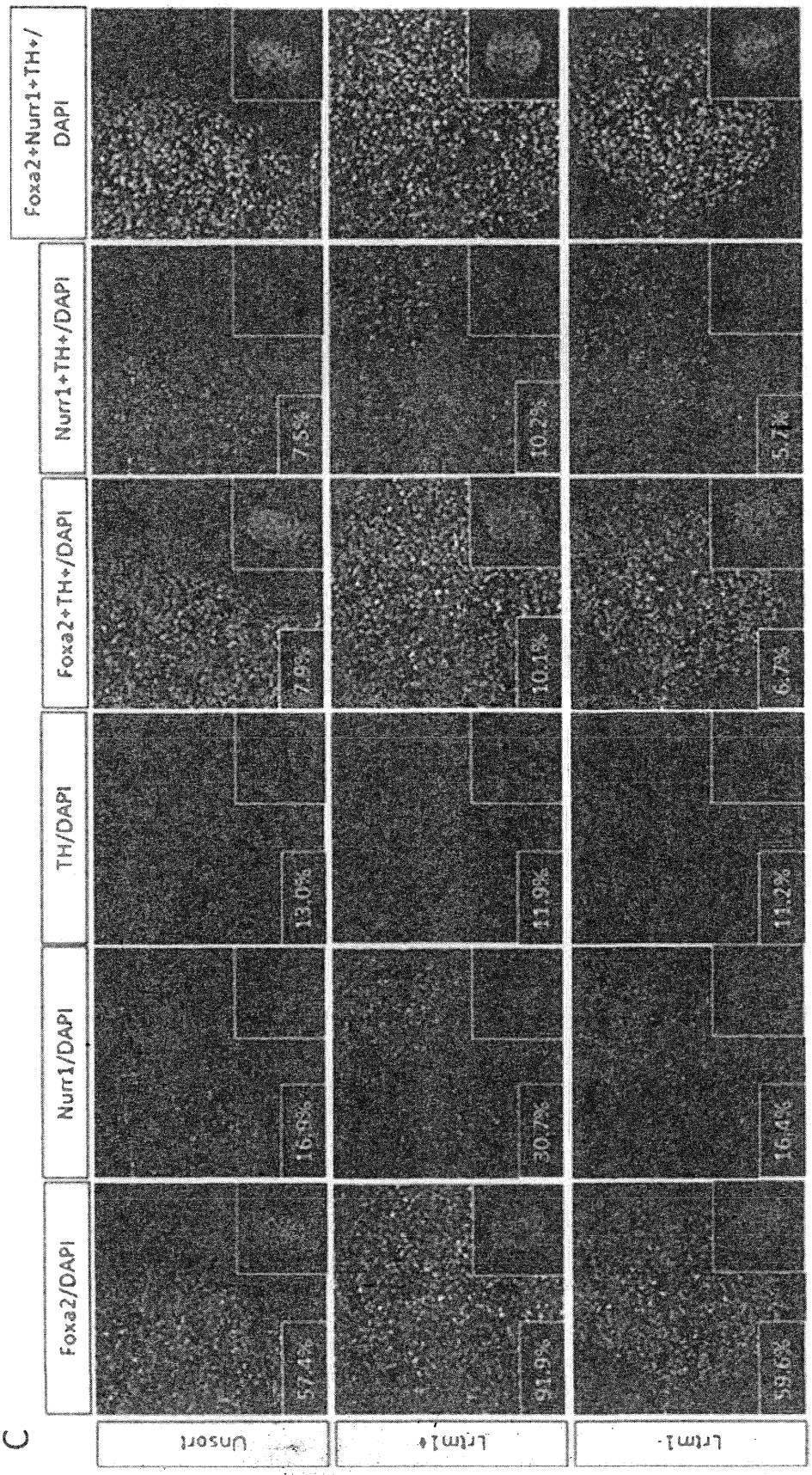

B
Foxa2/DAPI
Nurr1/DAPI
TH/DAPI
Foxa2+TH+/DAPI
Nurr1+TH+/DAPI
Foxa2+Nurr1+TH+/DAPI
Unsort
Lrtm1+
Lrtm1-
61.8%
17.3%
6.1%
2.8%
2.5%
96.8%
50.5%
25.6%
24.5%
24.0%
22.6%
3.8%
5.9%
2.4%
2.5%

Fig. 19-3


C
Foxa2/DAPI
Nurr1/DAPI
TH/DAPI
Foxa2+TH+/DAPI
Nurr1+TH+/DAPI
Foxa2+Nurr1+TH+/DAPI
Unsort
Lrtm1+
Lrtm1-
57.4%
16.9%
13.0%
7.8%
7.5%
91.9%
30.7%
11.9%
10.1%
10.2%
59.6%
16.4%
11.2%
6.7%
5.7%