Figure 1

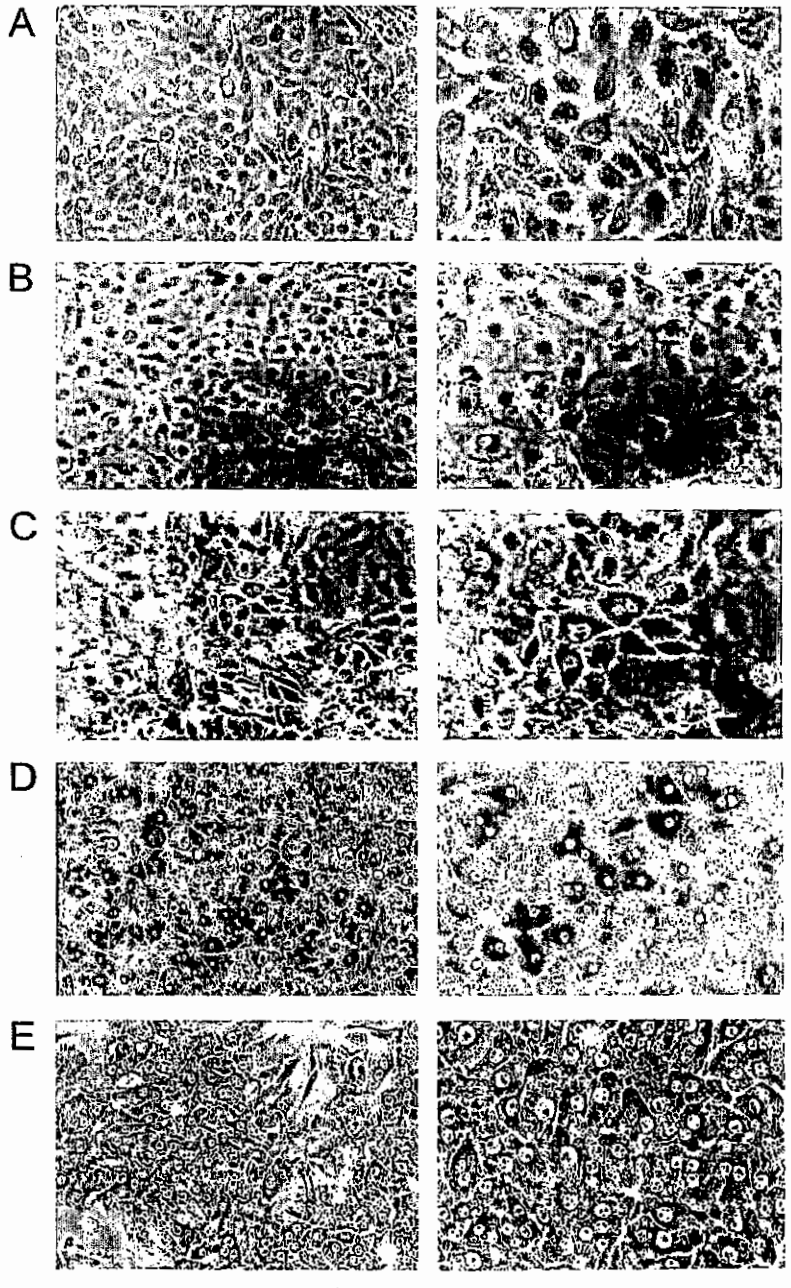


Figure 2

Insulin Expression by
hESC-derived Islet Cells

DAPI



Insulin
staining

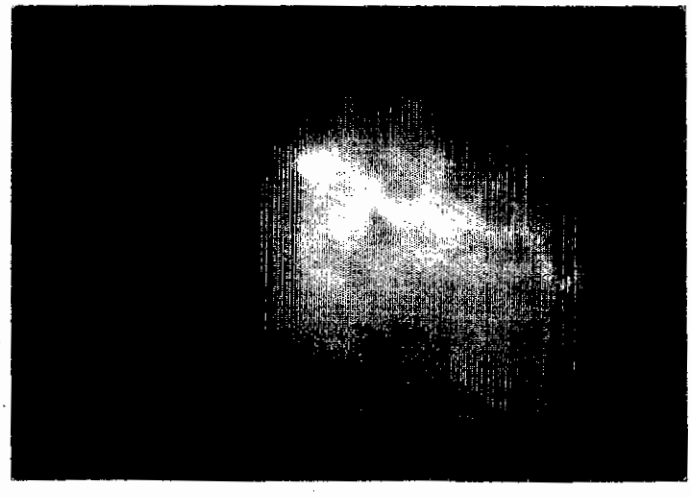


Figure 3

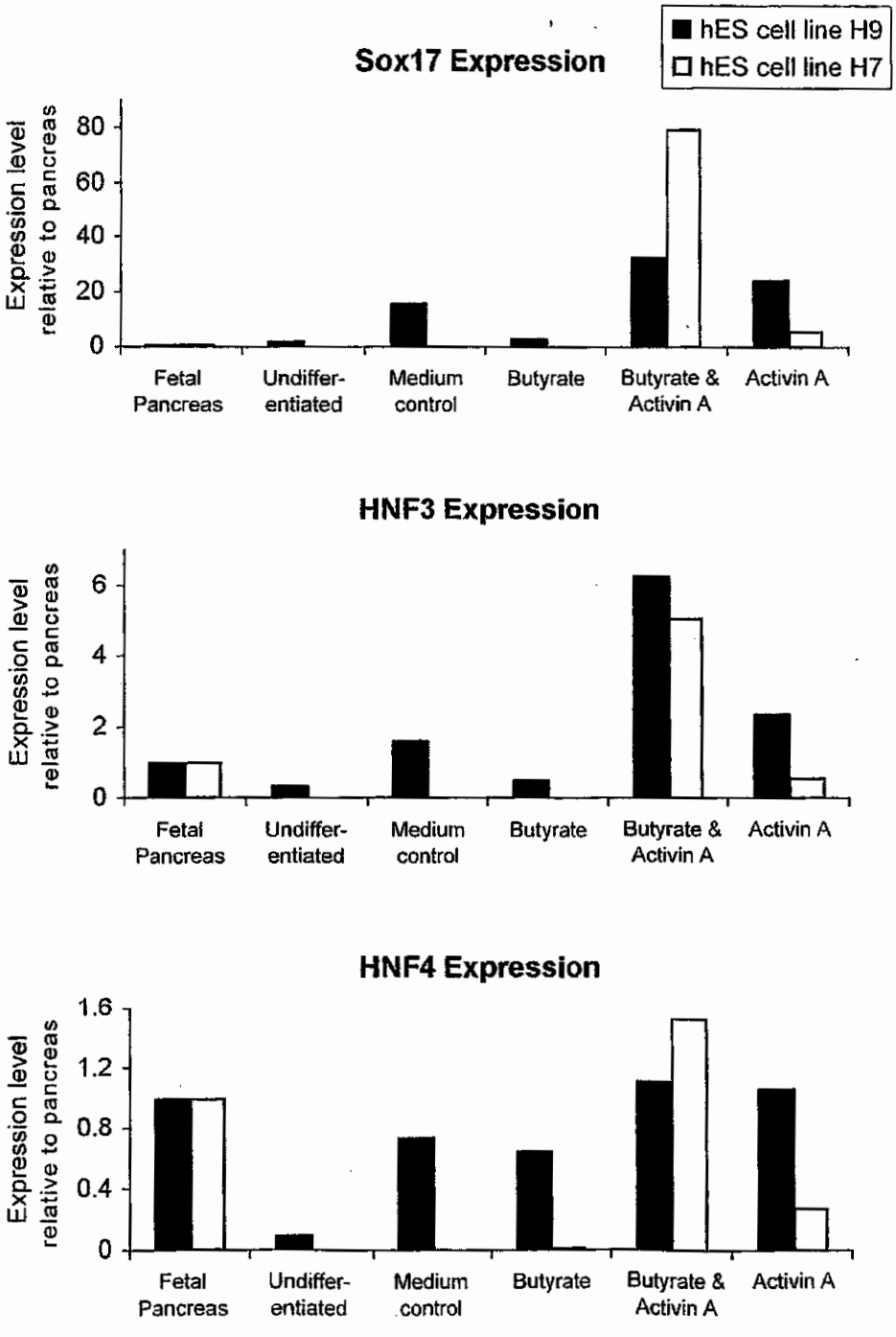
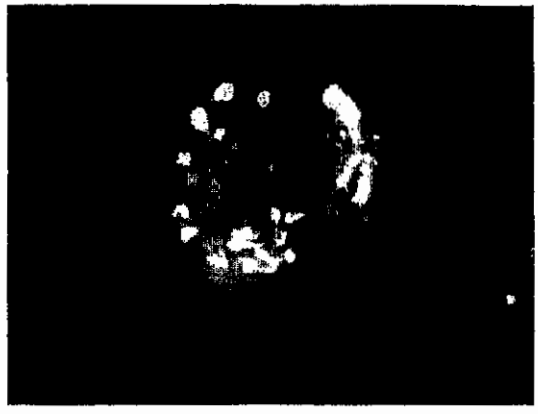

Sox17 Expression
hES cell line H9
hES cell line H7
Expression level relative to pancreas
80
60
40
20
0
Fetal Pancreas
Undiffer-entiated
Medium control
Butyrate
Butyrate & Activin A
Activin A
HNF3 Expression
Expression level relative to pancreas
6
4
2
0
Fetal Pancreas
Undiffer-entiated
Medium control
Butyrate
Butyrate & Activin A
Activin A
HNF4 Expression
Expression level relative to pancreas
1.6
1.2
0.8
0.4
0
Fetal Pancreas
Undiffer-entiated
Medium control
Butyrate
Butyrate & Activin A
Activin A

Figure 4

A



B



C

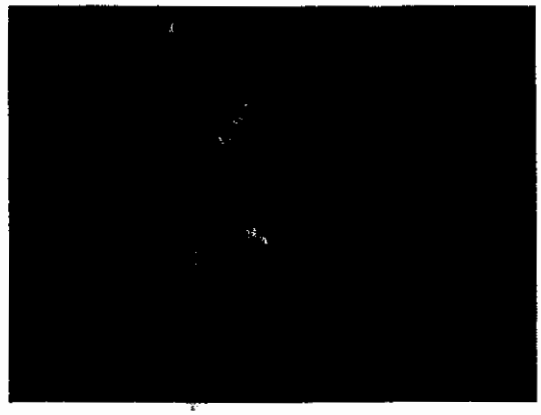
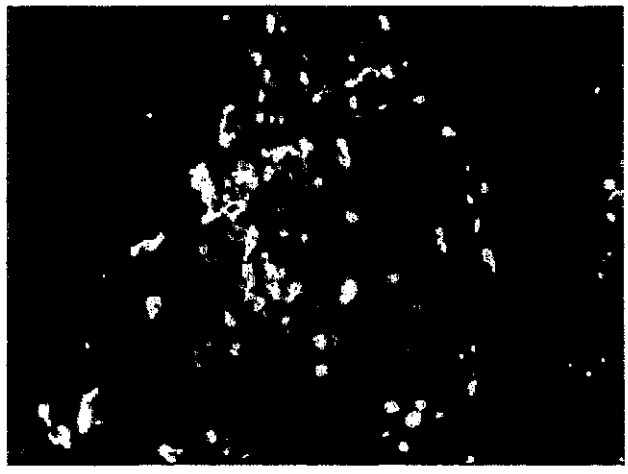


Figure 5

Glucagon Expression by Cells Transfected with Neurogenin3

20x



40x

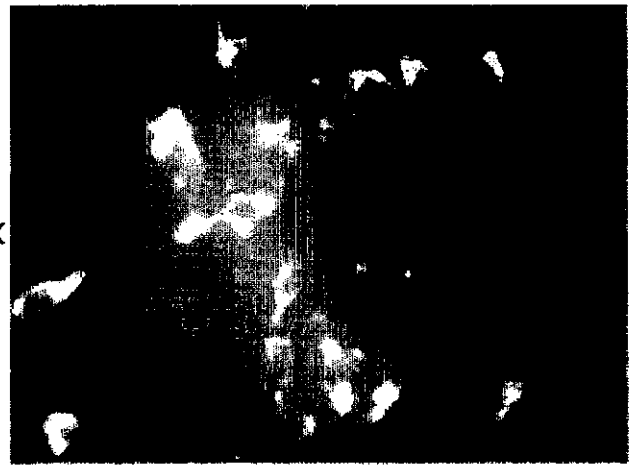


Figure 6(A)

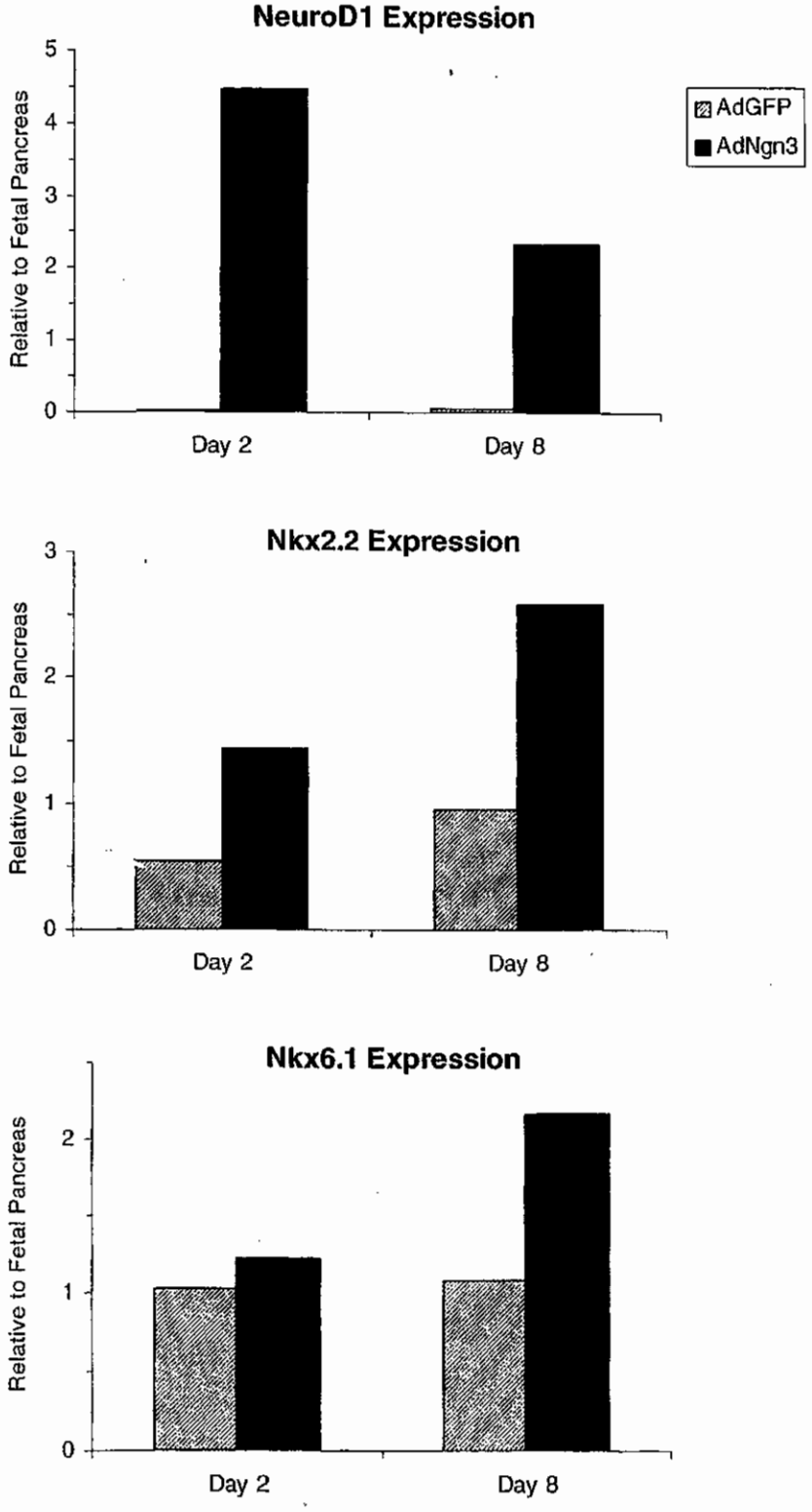
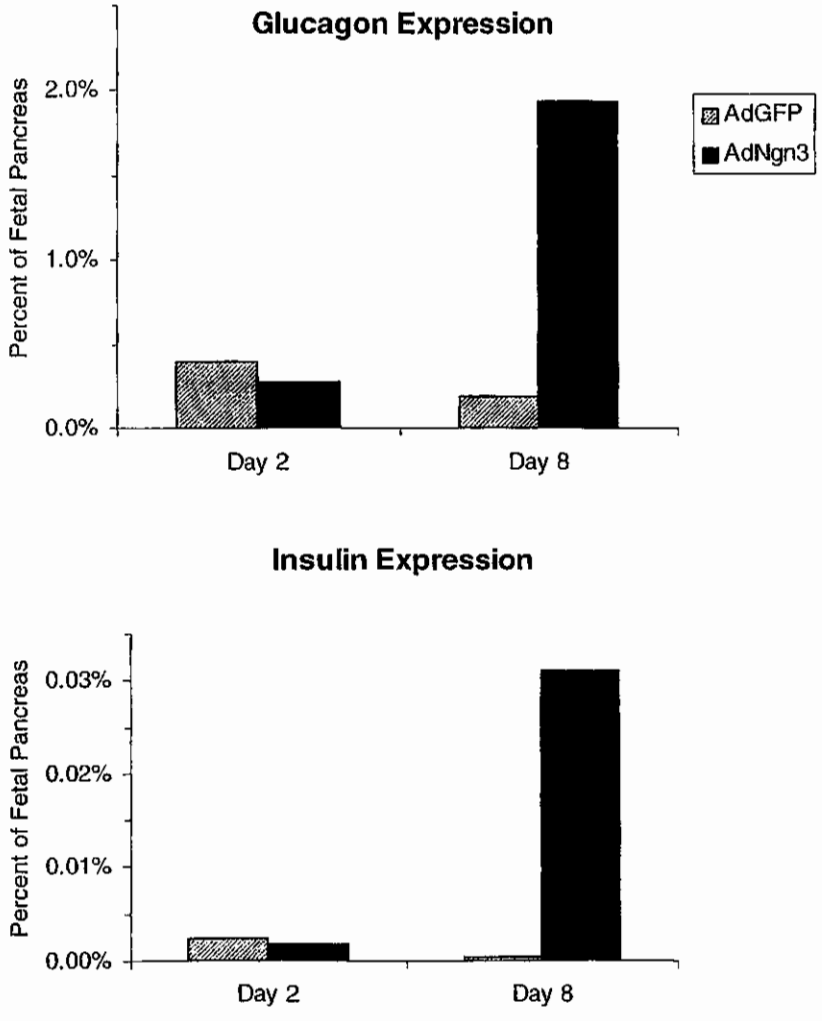

NeuroD1 Expression
Relative to Fetal Pancreas
5
4
3
2
1
0
Day 2
Day 8
AdGFP
AdNgn3
Nkx2.2 Expression
Relative to Fetal Pancreas
3
2
1
0
Day 2
Day 8
Nkx6.1 Expression
Relative to Fetal Pancreas
2
1
0
Day 2
Day 8

Figure 6(B)


Glucagon Expression
Percent of Fetal Pancreas
2.0%
1.0%
0.0%
Day 2
Day 8
AdGFP
AdNgn3
Insulin Expression
Percent of Fetal Pancreas
0.03%
0.02%
0.01%
0.00%
Day 2
Day 8