Fig. 1

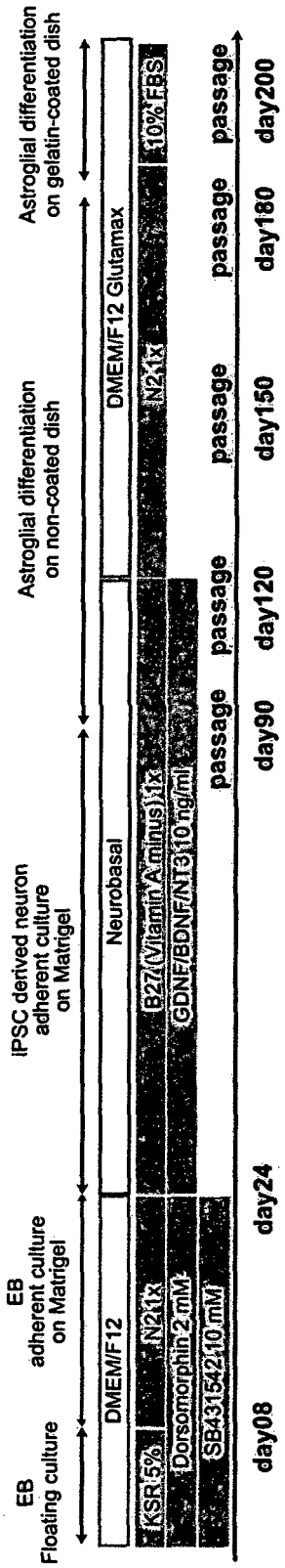

EB
Floating culture
EB
adherent culture
on Matrigel
IPSC derived neuron
adherent culture
on Matrigel
Astroglial differentiation
on non-coated dish
Astroglial differentiation
on gelatin-coated dish
DMEM/F12
N21x
Dorsomorphin 2 mM
SB431542 10 mM
Neurobasal
B27(Vitamin A minus)1x
GDNF/BDNF/NT3 10 ng/ml
DMEM/F12 Glutamax
N21x
10%FBS
KSR 5%
passage
day08
day24
day90
day120
day150
day180
day200

Fig. 2

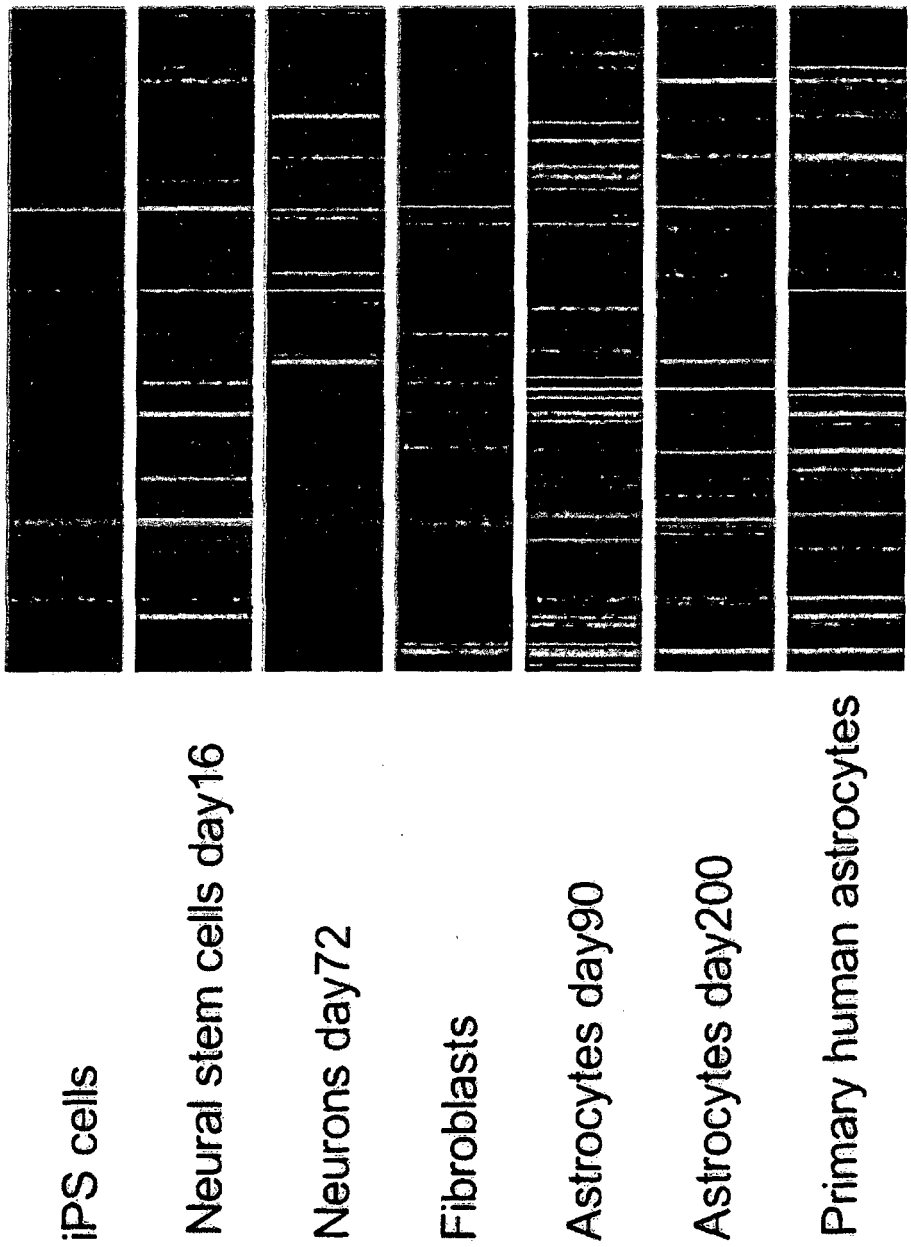

iPS cells
Neural stem cells day16
Neurons day72
Fibroblasts
Astrocytes day90
Astrocytes day200
Primary human astrocytes

Fig. 3

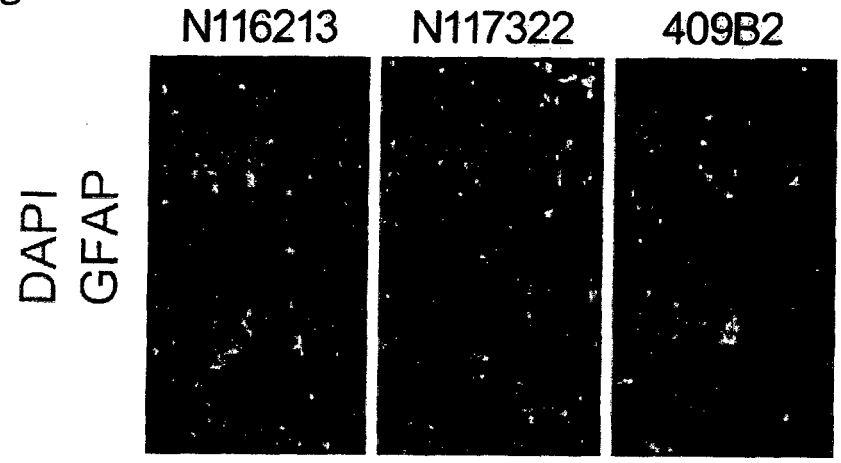

N116213
N117322
409B2
DAPI
GFAP

Fig. 4

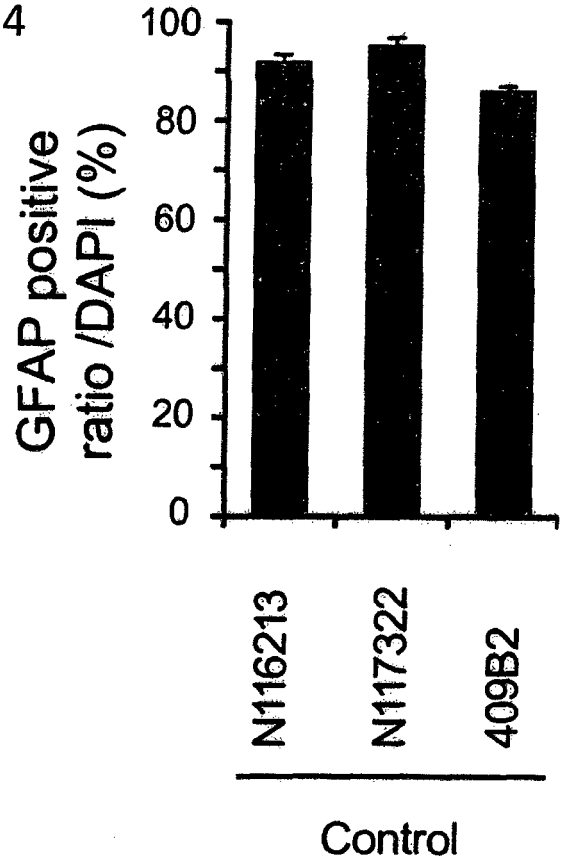
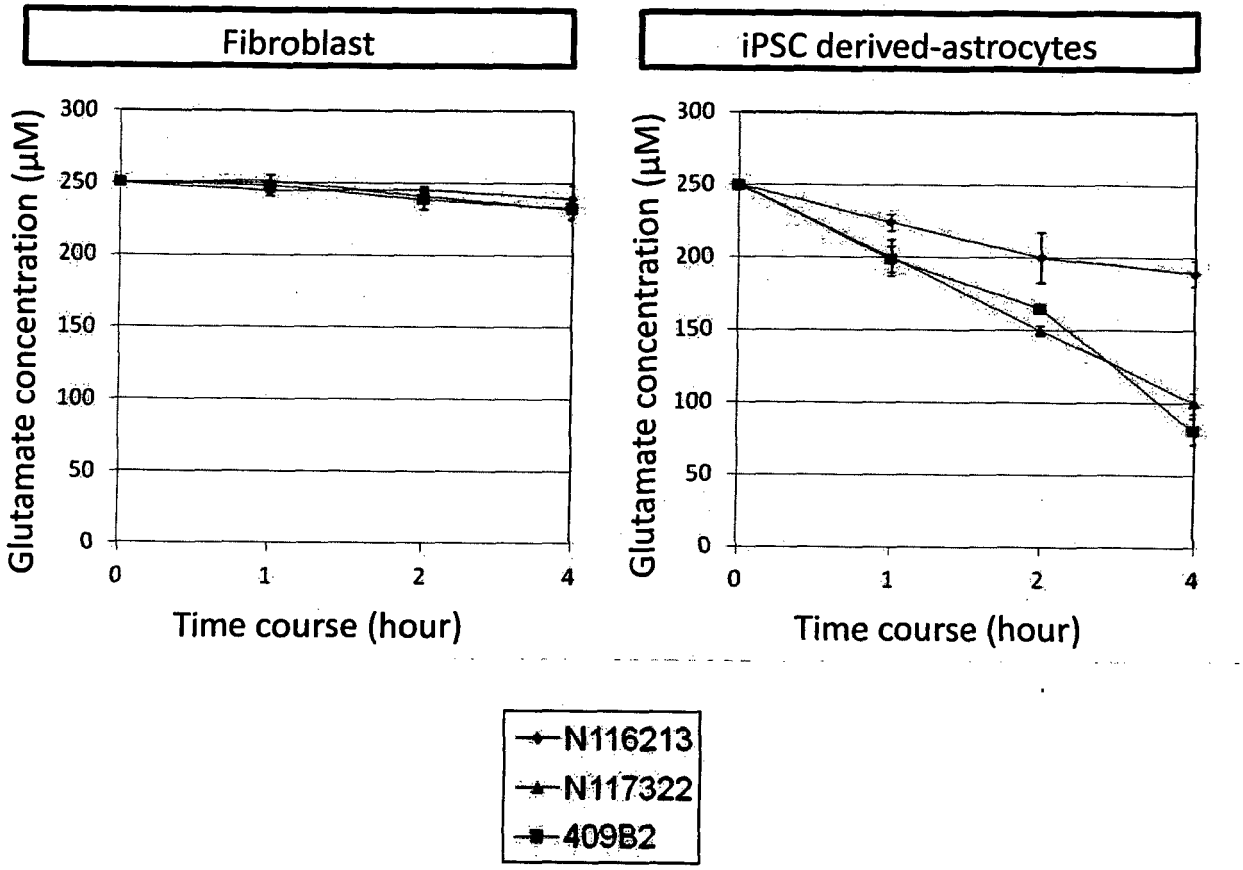

GFAP positive ratio /DAPI (%)
100
80
60
40
20
0
N116213
N117322
409B2
Control

Fig. 5


Fibroblast
iPSC derived-astrocytes
Glutamate concentration (μM)
300
250
200
150
100
50
0
0
1
2
4
Time course (hour)
N116213
N117322
409B2