Fig. 1

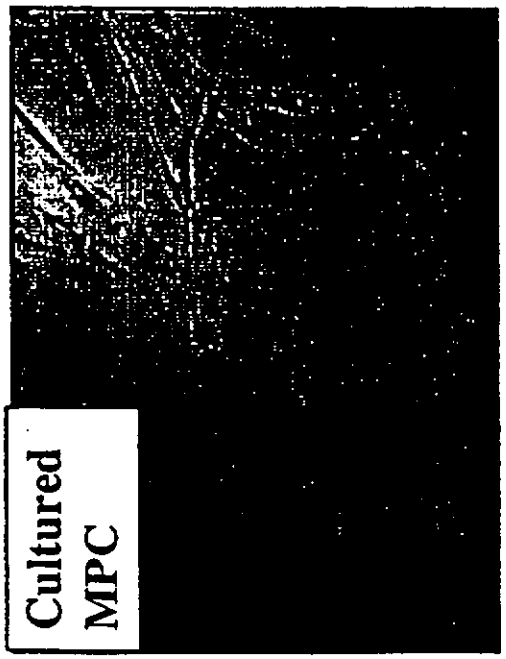


Fig. 1b

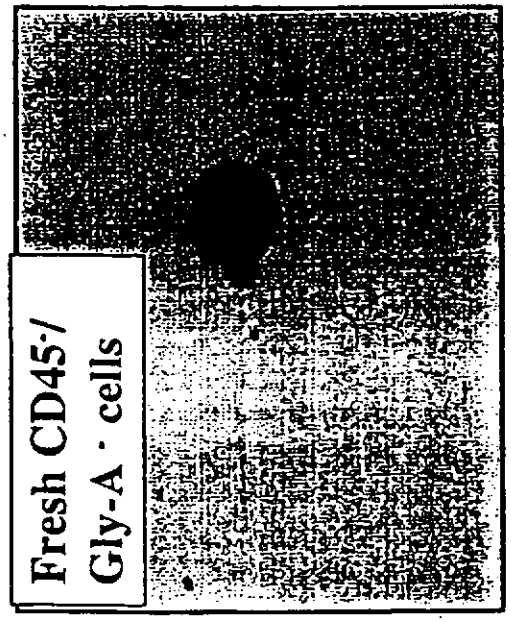


Fig. 1a

Fig. 2

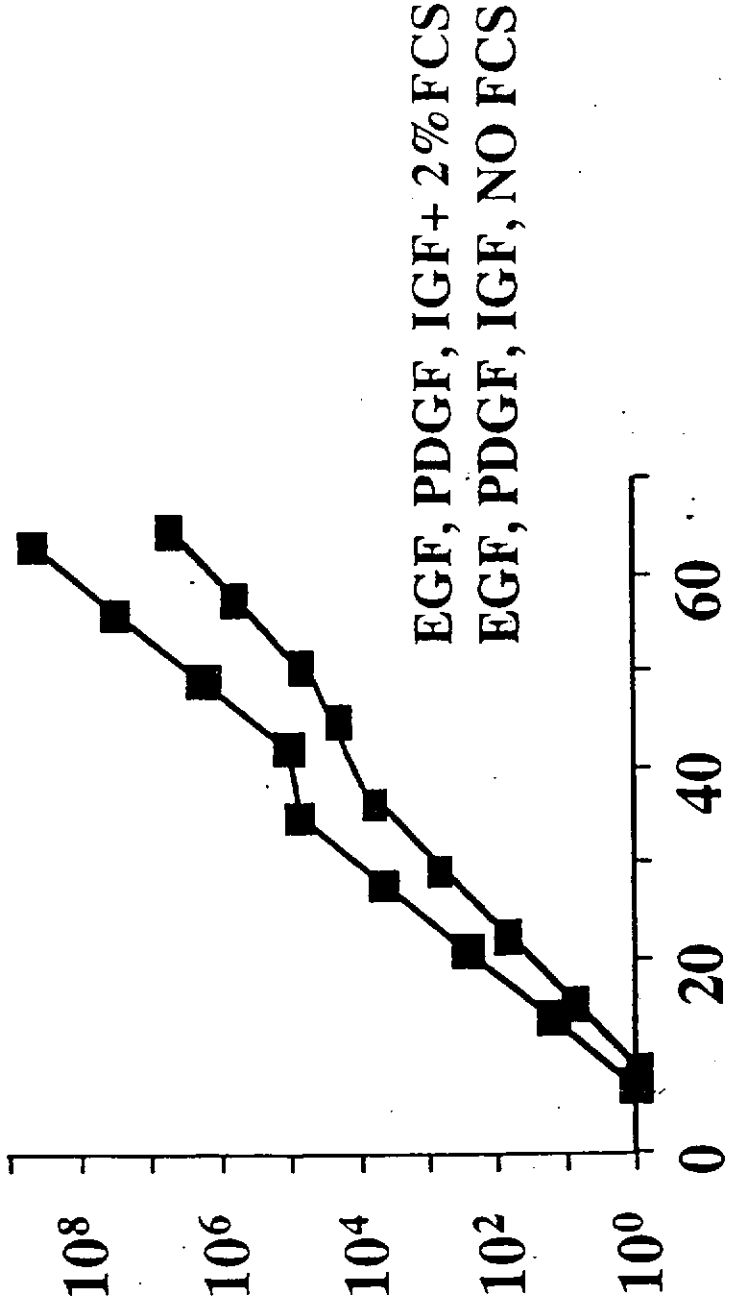

EGF, PDGF, IGF+ 2%FCS
EGF, PDGF, IGF, NO FCS
10^8
10^6
10^4
10^2
10^0
0
20
40
60

Figure 3: Telomere length of cultured MAPC

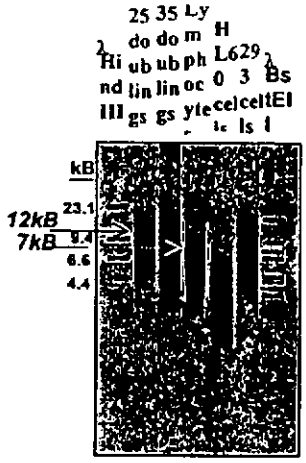


Fig. 4

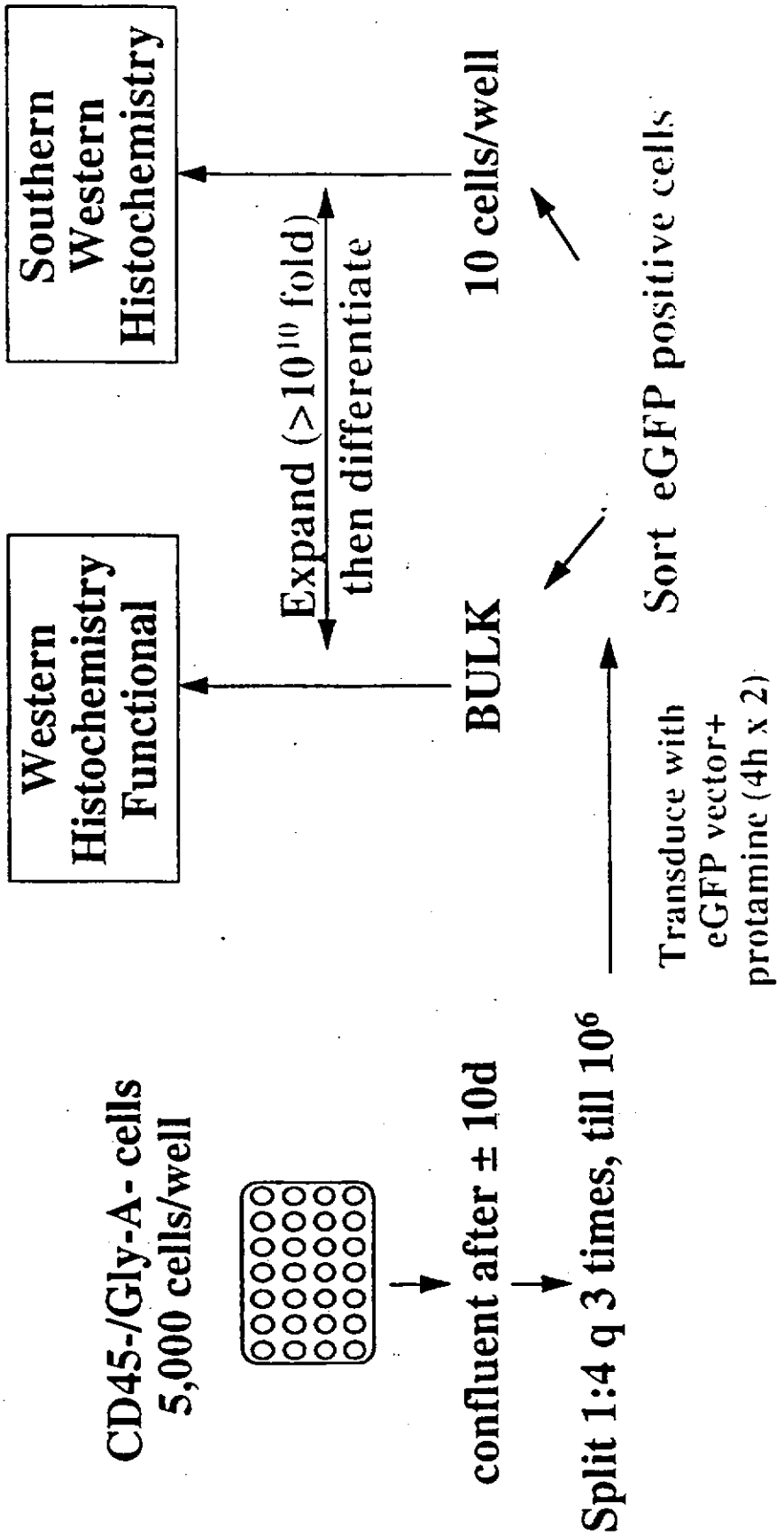

Southern
Western
Histochemistry
Western
Histochemistry
Functional
Expand (>10^10 fold)
then differentiate
10 cells/well
BULK
Sort eGFP positive cells
Transduce with
eGFP vector+
protamine (4h x 2)
CD45-/Gly-A- cells
5,000 cells/well
confluent after ± 10d
Split 1:4 q 3 times, till 10^6

Fig. 5

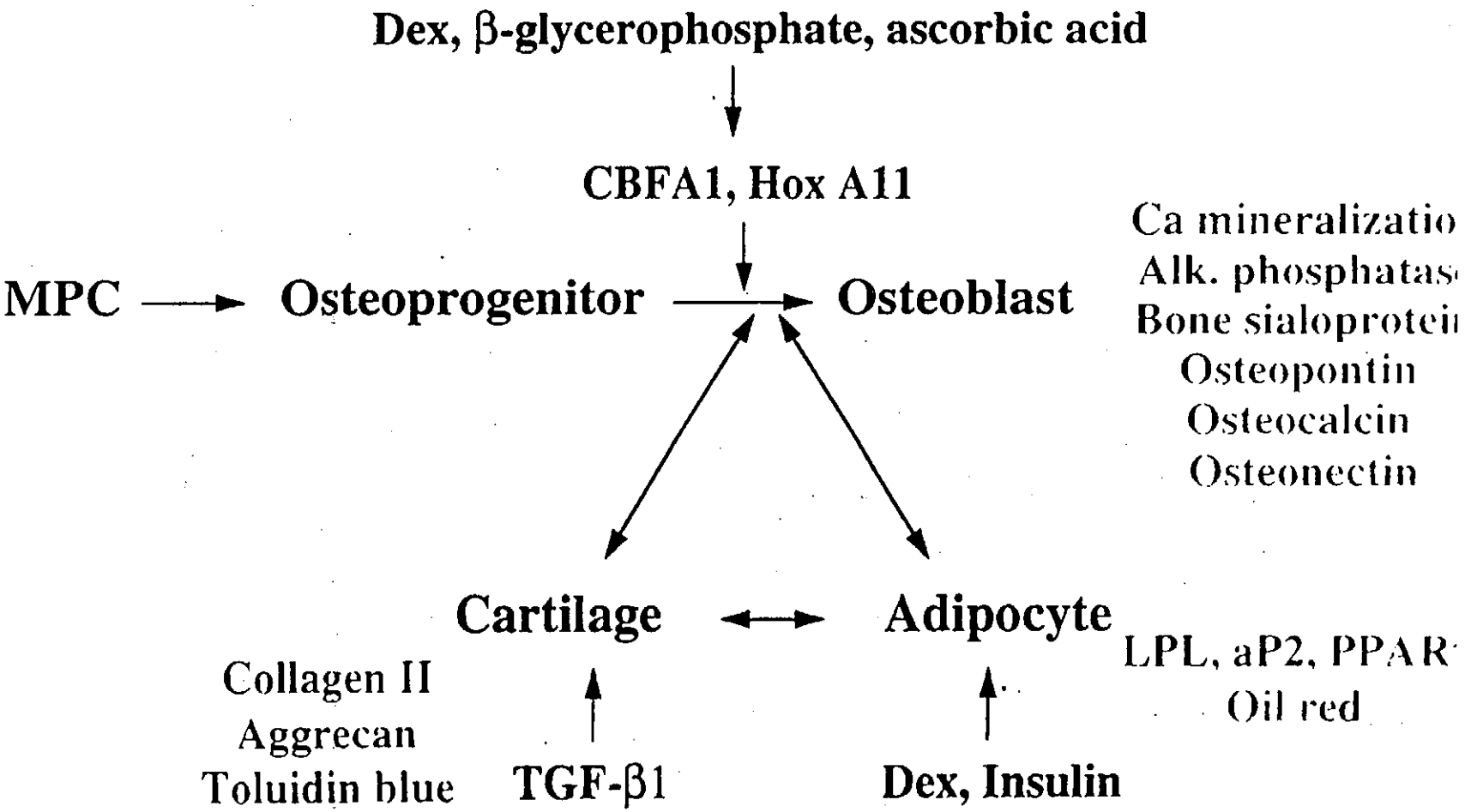

Dex, β-glycerophosphate, ascorbic acid
CBFA1, Hox A11
MPC
Osteoprogenitor
Osteoblast
Ca mineralizatio
Alk. phosphatas
Bone sialoprotei
Osteopontin
Osteocalcin
Osteonectin
Cartilage
Adipocyte
LPL, aP2, PPAR
Oil red
Collagen II
Aggrecan
Toluidin blue
TGF-β1
Dex, Insulin

Figure 6 mesenchymal differentiation

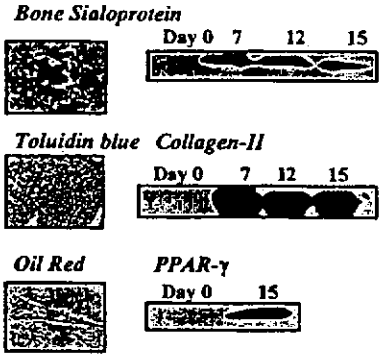
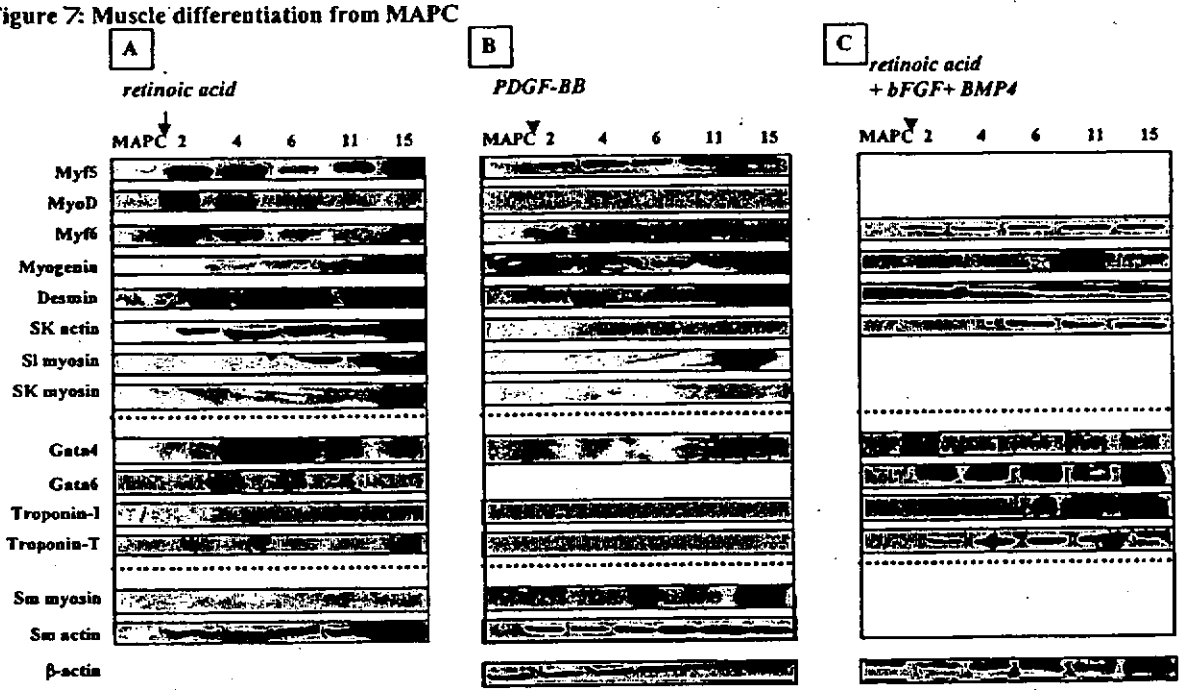
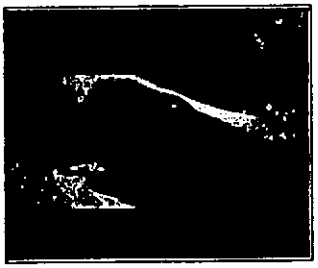


Figure 7: Muscle differentiation from MAPC



Antibodies against muscle specific proteins used shown on left
Left panel: skeletal muscle differentiation, middle panel smooth muscle differentiation, right panel cardiac muscle differentiation
Labels on to of the figure: undifferentiated cells, days after induction with agents listed

Figure 8: Myotube formation



Myotubes were labeled with the membrane dye, PKH26 (red). Myoblasts were derived from eGFP transduced MPC (green). Cells were cocultured for 2 days and then examined by fluorescence microscopy

Fig. 9

MPC
Hemangioblast
Flk1 Flt1
VEGF
Endothelium
Tie +
Tec +
CD31 + (PECAM)
CD34 +
CD36 + (TSP R)
P/E selectin +
vWF +
LDL uptake

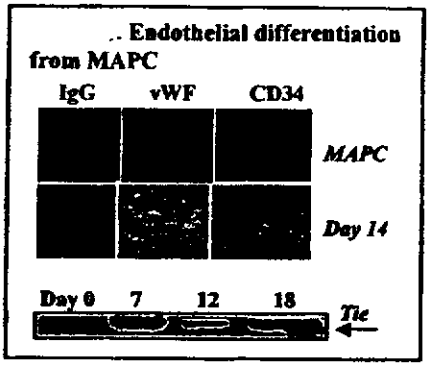

Endothelial differentiation from MAPC
IgG
vWF
CD34
MAPC
Day 14
Day 0
7
12
18
Tie

Figure 10

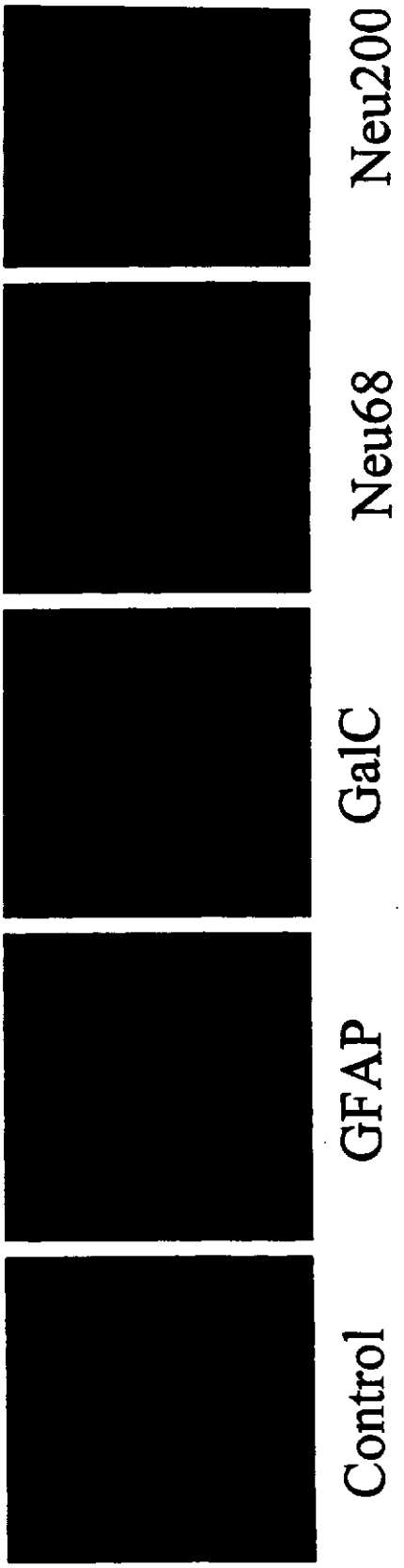


Figure 11

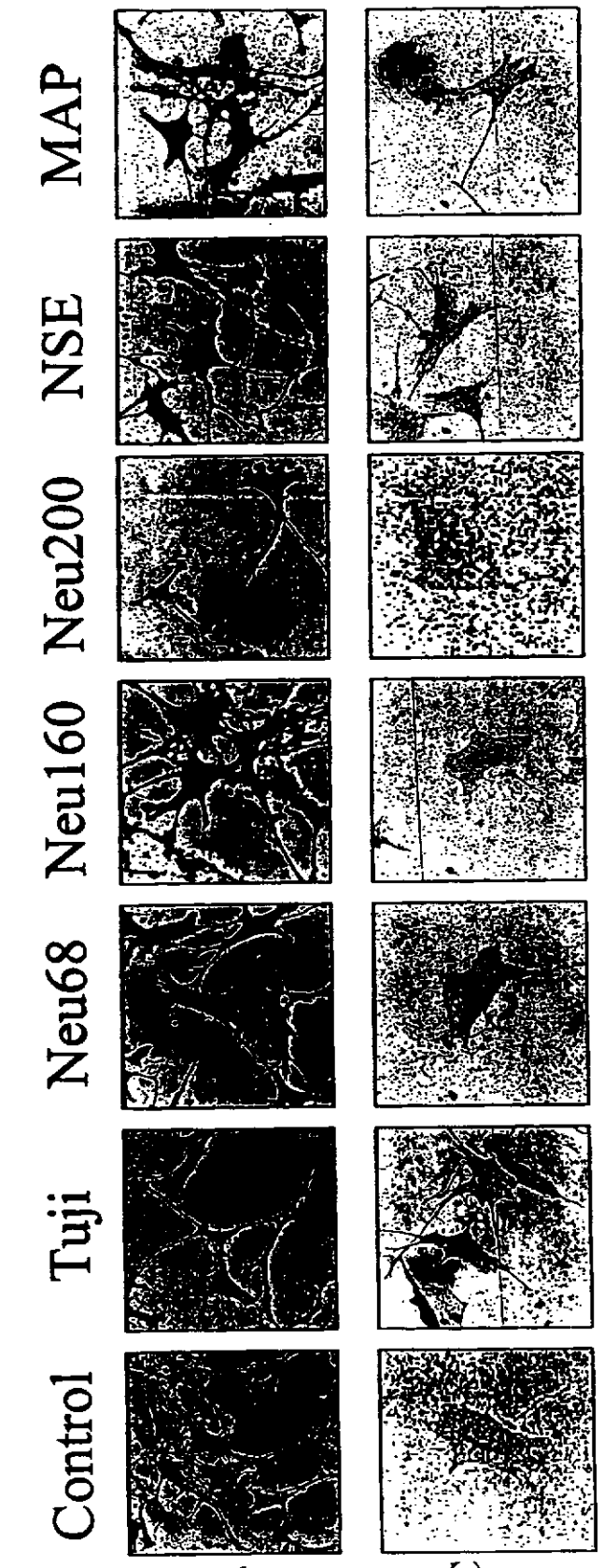


Figure 12

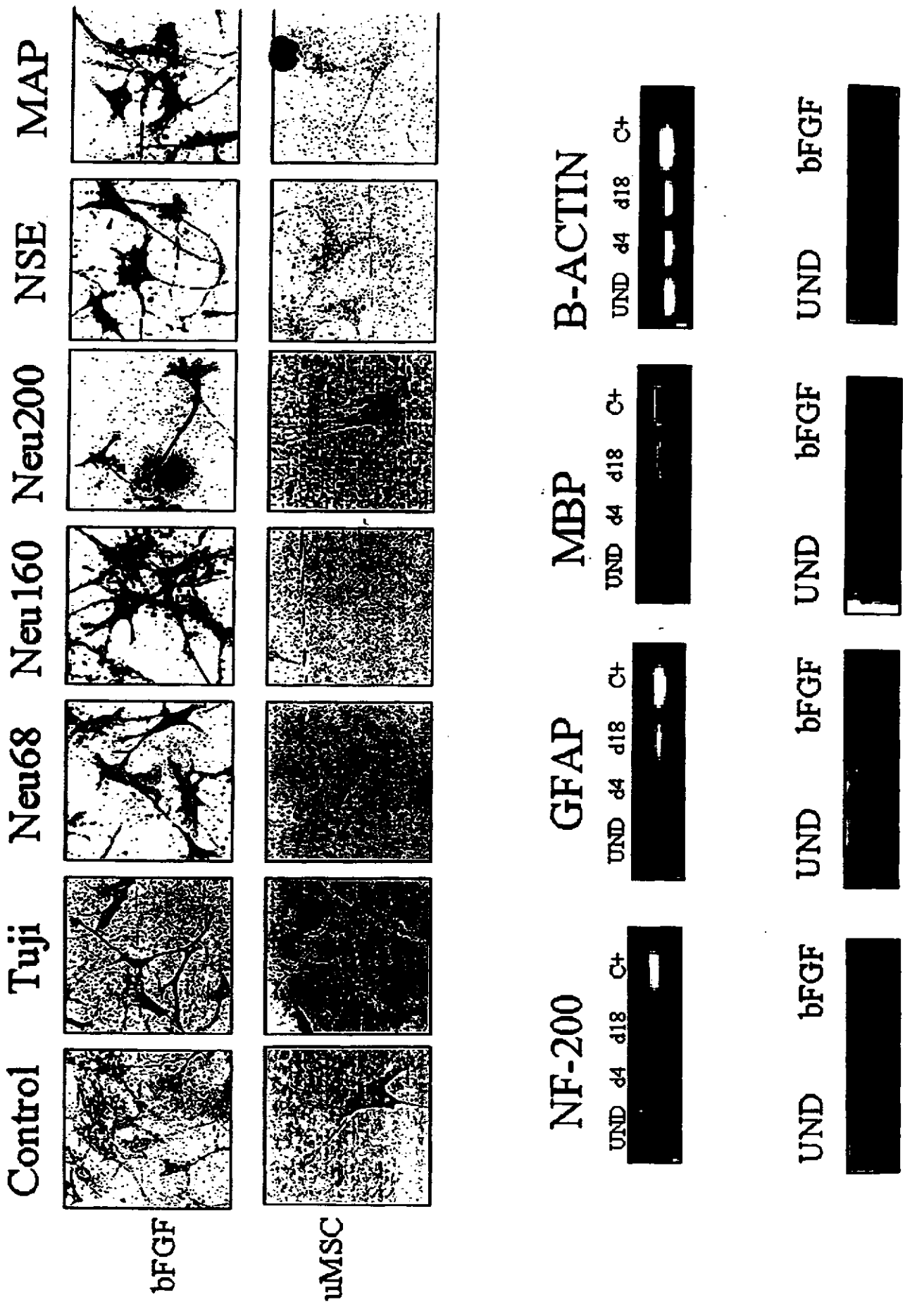

Control
Tuji
Neu68
Neu160
Neu200
NSE
MAP
bFGF
uMSC
NF-200
GFAP
MBP
B-ACTIN
UND d4 d18 C+
UND bFGF

Figure 13

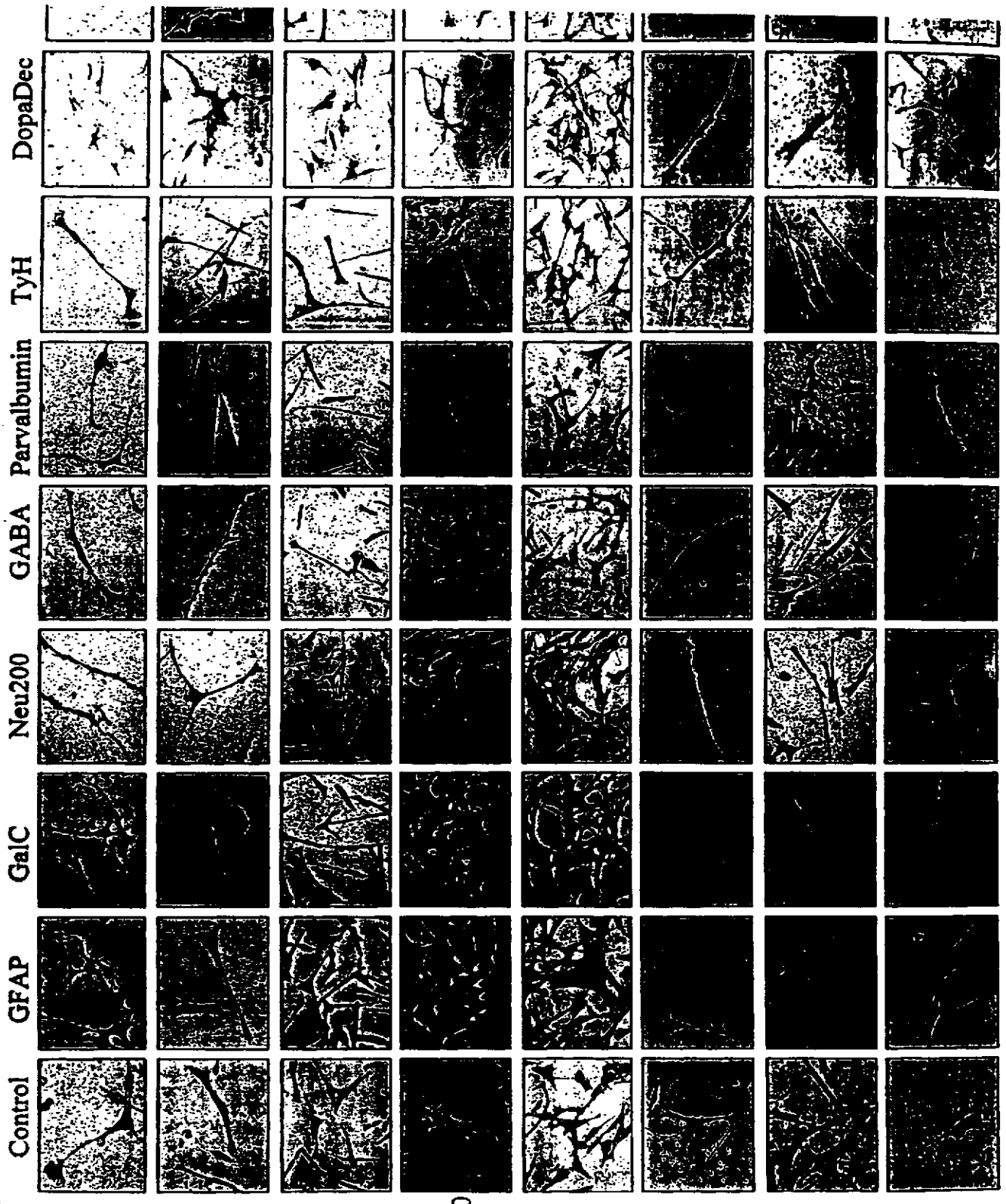

Control
GFAP
GalC
Neu200
GABA
Parvalbumin
TyH
DopaDec
bFGF
FGF-8
FGF-9
FGF-10
FGF-4
BDNF
GDNF
CNTF

Figure 14

Fig (15)

Fig (16)

Figure 7: Effect of stereotactic implantation of MAPC in infarcted rat brain

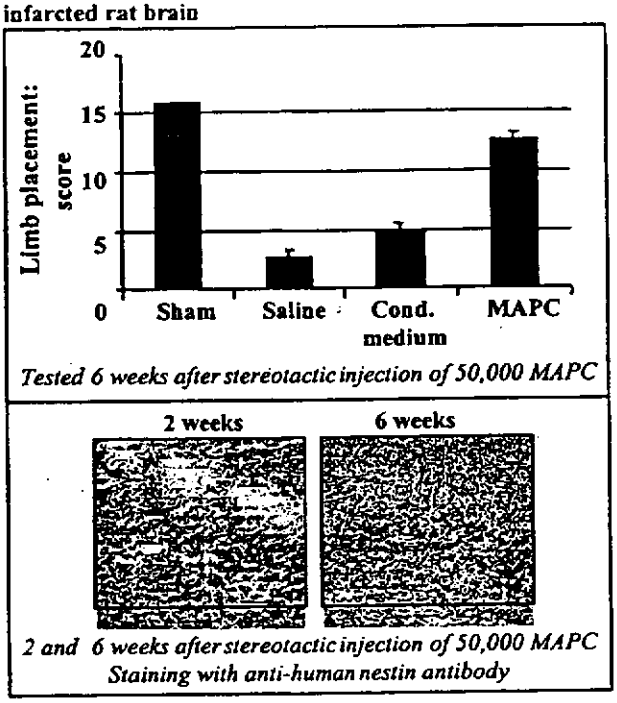
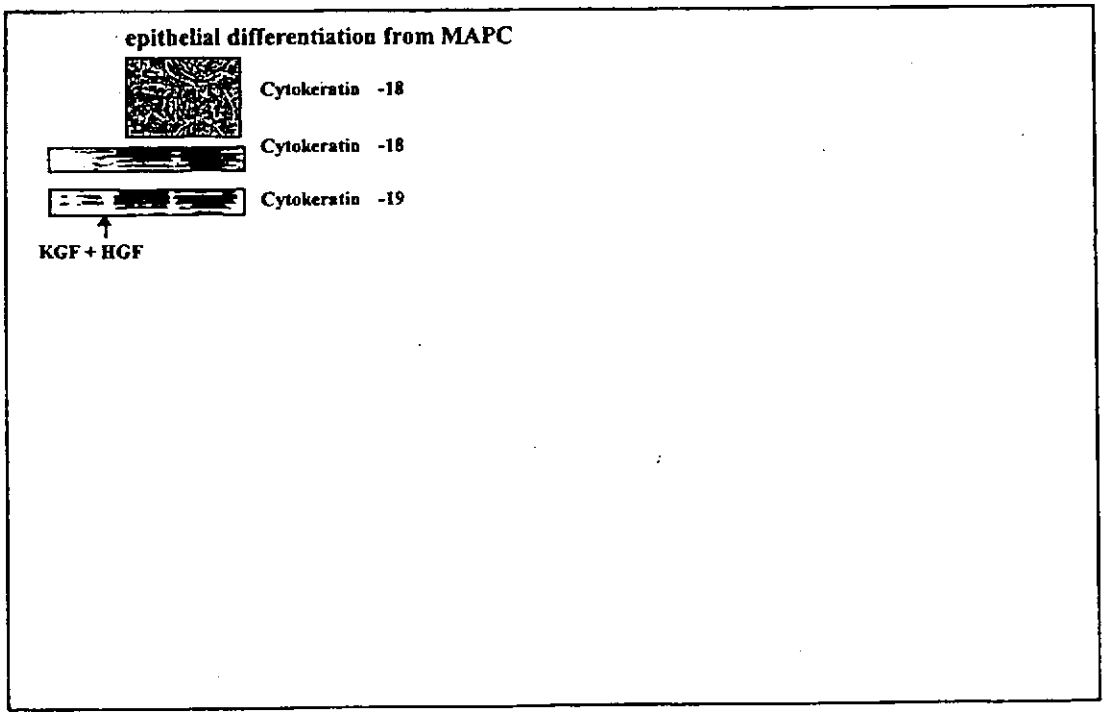


Figure 17


epithelial differentiation from MAPC
Cytokeratin -18
Cytokeratin -18
Cytokeratin -19
KGF + HGF