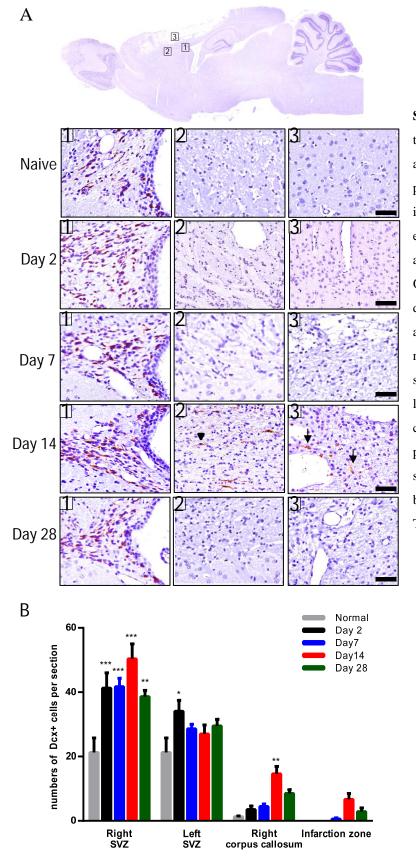
## **Supplemental Information**

MANF Promotes Differentiation and Migration of Neural Progenitor Cells with Potential Neural Regenerative Effects in Stroke

Kuan-Yin Tseng, Jenni E. Anttila, Konstantin Khodosevich, Raimo K. Tuominen, Maria Lindahl, Andrii Domanskyi, and Mikko Airavaara



**Supp. Fig.1. A,** Distribution of DCX<sup>+</sup> cells in the SVZ, corpus callosum beneath the lesion area, and infarction zone at different time points after dMCAo. DCX+ cells in the infarction zone and underlying white matter exhibit morphology characterized by leading and trailing processes (arrow). B, Quantification of the number of DCX+ cells in different brain areas at different time points after stroke reveals a significant increase in the number of DCX+ cells at 2 to 28 days poststroke in the right SVZ compared to nonlesioned SVZ. A significant increase of DCX+ cells was also found in the corpus callosum at post-injury day 14 rats compared to other poststroke days (n=3-4, 2-way ANOVA time x brain area p<0.001; \*\*\* p<0.001, \* p<0.05 Tukey's post hoc test, scale bar 50 µm.

## Details of the used antibodies.

Antibody Name	Vendor	Cat Num.	Proper Citation	Clonality	Host Organism
Purified anti- Tubulin -3 (TUBB3) Antibody	BioLegend	802001	(BioLegend Cat# 802001, RRID: AB_2564645)	polyclonal antibody	rabbit
Anti-Glial Fibrillary Acidic Protein, clone GA5 antibody	Millipore	MAB360	(Millipore Cat# MAB360, RRID: AB_11212597)	monoclonal antibody	mouse
Phospho- p44/42 MAPK (Erk1/2) (Thr202/Tyr2 04) (20G11) Rabbit mAb antibody	Cell Signaling Technology	4376\$	(Cell Signaling Technology Cat# 4376S, RRID: AB_331772)	monoclonal antibody	rabbit
Map Kinase, p44/42, Erk1/Erk2 antibody	Cell Signaling Technology	4695	(Cell Signaling Technology Cat# 4695, RRID: AB_390779)	monoclonal antibody	rabbit
Phospho-Akt (Thr308) Antibody	Cell Signaling Technology	9275 also 9275S, 9275L	(Cell Signaling Technology Cat# 9275, RRID: AB_329828)	polyclonal antibody	rabbit
Akt Antibody	Cell Signaling Technology	9272 also 9272S	(Cell Signaling Technology Cat# 9272, RRID: AB_329827)	polyclonal antibody	rabbit
Phospho-S6 Ribosomal Protein (Ser235/236) Antibody	Cell Signaling Technology	2211 also 2211L, 2211S	(Cell Signaling Technology Cat# 2211, RRID: AB_331679)	polyclonal antibody	rabbit
GRP 78 (C- 20) antibody	Santa Cruz Biotechnolo gy	sc-1051	(Santa Cruz Biotechnology Cat# sc- 1051, RRID: AB_2119994)	polyclonal antibody	goat
Phospho- Stat3 (Ser727) Antibody	Cell Signaling Technology	9134 also 9134S, 9134L	(Cell Signaling Technology Cat# 9134, RRID: AB_331589)	polyclonal antibody	rabbit
Phospho- Stat-3 (tyr705) antibody	Cell Signaling Technology	9131 also 9131S, 9131L	(Cell Signaling Technology Cat# 9131, RRID: AB_331586)	polyclonal antibody	rabbit
Rabbit Anti- Stat3 Polyclonal antibody, Unconjugate d	Santa Cruz Biotechnolo gy	sc-482	(Santa Cruz Biotechnology Cat# sc- 482, RRID: AB_632440)	polyclonal antibody	rabbit
Mouse Anti- Glyceraldehy de-3-PDH	Millipore	MAB374	(Millipore Cat# MAB374, RRID: AB_2107445)	monoclonal antibody	mouse

(GAPDH) Monoclonal antibody, Unconjugate d					
Mouse monoclonal antibody to human MANF (Mesenceph alic astrocyte- derived neurotrophic factor)	Icosagen AS	Icosagen AS	(Icosagen AS Cat# 310- 100, RRID: AB_11135308)	polyclonal antibody	rabbit
Doublecortin (C-18) antibody	Santa Cruz Biotechnolo gy	sc-8066	(Santa Cruz Biotechnology Cat# sc- 8066, RRID: AB_2088494)	polyclonal antibody	goat
Mouse Anti- Nestin Monoclonal antibody, Unconjugate d, Clone rat- 401	Millipore	MAB353	(Millipore Cat# MAB353, RRID: AB_94911)	monoclonal antibody	mouse
Sheep Anti- BrdU Polyclonal Antibody, Unconjugate d	Abcam	ab1893	(Abcam Cat# ab1893, RRID: AB_302659)	polyclonal antibody	sheep
Anti-NeuN, clone A60 antibody	Millipore	MAB377	(Millipore Cat# MAB377, RRID: AB_2298772)	monoclonal antibody	mouse
Anti-GFAP, N-Terminal antibody produced in rabbit	Sigma- Aldrich	SAB450116 2	(Sigma-Aldrich Cat# SAB4501162, RRID: AB_10746077)	polyclonal antibody	rabbit
Mouse Anti- NG2 Monoclonal antibody, Unconjugate d, Clone 132.38	Millipore	05-710	(Millipore Cat# 05-710, RRID: AB_309925)	monoclonal antibody	mouse
Rabbit Anti- Green Fluorescent Protein (GFP) Polyclonal Antibody, Unconjugate d	Thermo Fisher Scientific	A-6455	(Thermo Fisher Scientific Cat# A-6455, RRID: AB_221570)	polyclonal antibody	rabbit