

**Table S1.** mAb antibodies used in immunofluorescence (IF) and western blot (WB).

mAbs	IF/WB Dilution	Reference
sodium voltage-gated channel alpha subunit-9 (SCN9A)	1:50/1:400	<i>Na<sup>+</sup> CP type IXa Antibody H-17, sc-130096; Santa Cruz</i>
synaptosome associated protein-25 (SNAP-25)	1:200/1:400	<i>SNAP-25 Antibody C-18, sc7538; Santa Cruz</i>
tubulin-III (TUB-III)	1:200/1:1000	<i>Anti-tubulin Antibody beta III isoform, MAB1637; Millipore</i>
nestin (NES)	1:100/1:500	<i>Nestin Antibody, sc-23927; Santa Cruz</i>
choline O-acetyltransferase (CHAT)	1:200/1:400	<i>Choactase antibody E-7, sc-55557; Santa Cruz</i>
glial fibrillary acidic protein (GFAP)	1:50/1:500	<i>GFAP Antibody GA-5, sc-58766; Santa Cruz</i>
microtubule associated protein-2 (MAP2)	1:50/1:500	<i>MAP2 antibody A-4, sc74421; Santa Cruz</i>
O4 forkhead box (FOXO-4)	1:200/1:100	<i>Anti-FOXO-4, sab4501887; Sigma</i>
tyroxine hydroxylase (TH)	1:2500/1:4000	<i>Anti-tyrosine hydroxylase antibody, T2928; Sigma</i>
enolase (ENS)	1:100/1:400	<i>Enolase 5G10, sc-51882; Santa Cruz</i>
Tau protein (TAU)	1:50/1:100	<i>Anti-Tau antibody TAU-5, ab3931; ABCAM</i>
Neurofilament (NFM)	1:100/1:800	<i>Anti-Neurofilament antibody, 05744; Millipore</i>
galactosylceramidase (GalC)	1:50/1:500	<i>Anti-GalC antibody, mab342; Millipore</i>
n-cadherin	1:40/-	<i>N-cadherin antibody, sc-7939; Santa Cruz</i>
vimentin	1:50 /-	<i>Vimentin antibody, sc6260; Santa Cruz</i>
$\beta$ -actin	-/1:10000	<i><math>\beta</math>-actin antibody,, A3854, Sigma Aldrich</i>