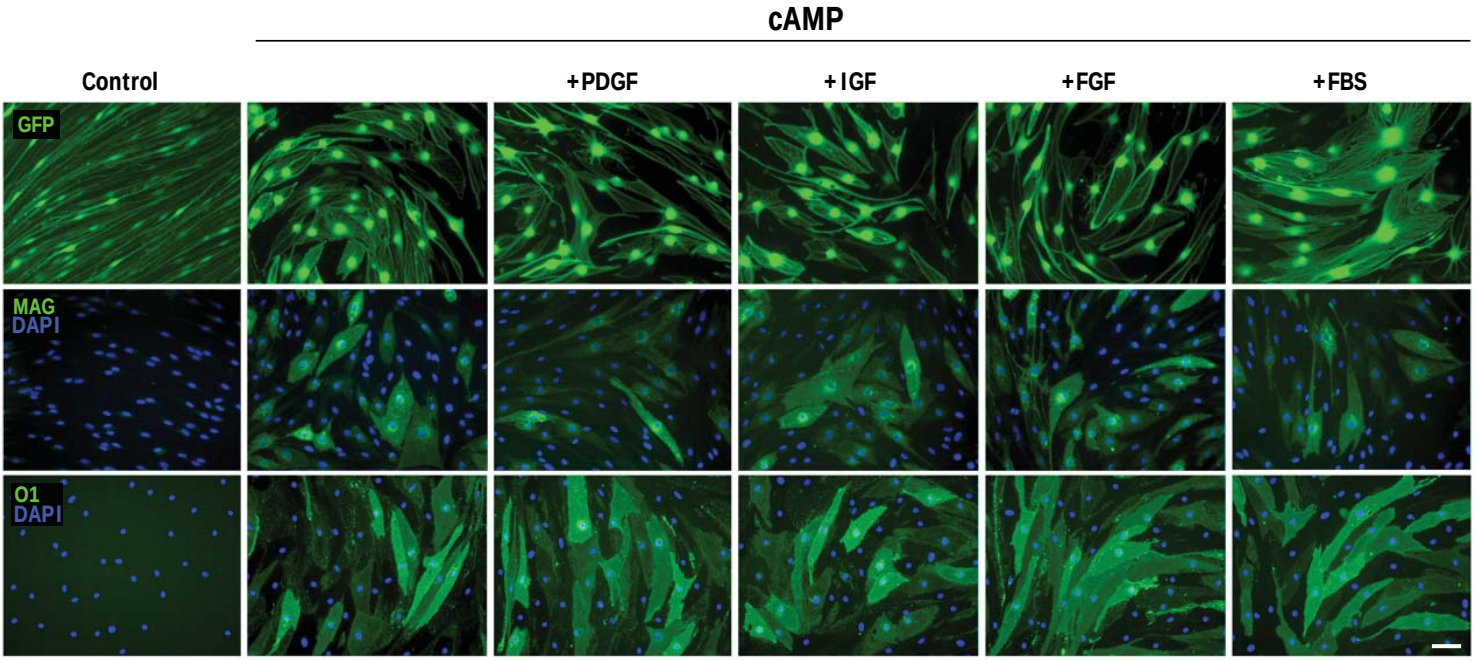
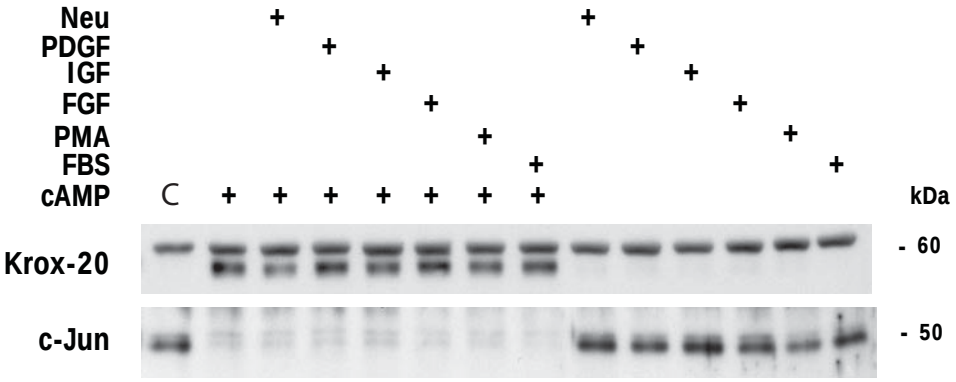
Fig. S1

Stimulation with RTK ligands or serum did not trigger SC dedifferentiation in the presence of cAMP elevation



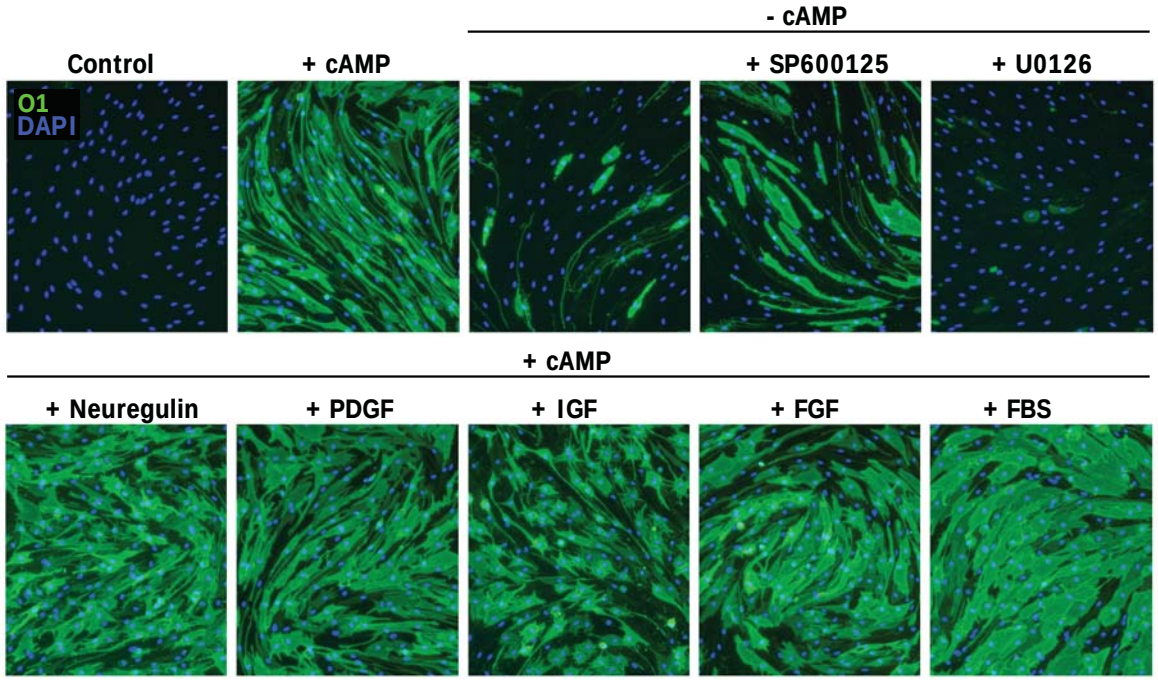
Effect of purified growth factors and FBS on SC morphology and the expression of myelination-associated markers. Mitogen- and serum-deprived lentivirally-infected adult SCs were left untreated (control) or treated with CPT-cAMP (cAMP) in non-proliferating medium. Three days after cAMP administration, the cells were stimulated with PDGF-BB, IGF-1, FGF-2 or 10% FBS for an additional 3-day period, as described in Fig.1 (legend). Cultures were photographed live (A, Top: GFP fluorescence) and analyzed for the expression of MAG and O1 by immuno-fluorescence microscopy (middle and bottom panels). Representative pictures are shown. Scale bar, 50 μM.

Non-antagonistic effect of RTK ligands, PMA and serum on the expression of Krox-20 and c-Jun in SCs co-stimulated with cAMP



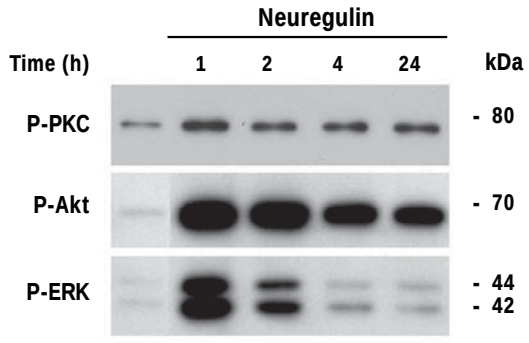
Mitogens- and serum-deprived adult SCs were left untreated (control, C) or treated in non-proliferating medium with CPT-cAMP (cAMP) alone or together with the indicated growth factors and serum. Three days after treatment, cells were lysed and the expression of Krox-20 and c-Jun was determined by western blot, as described in Fig. 6 (legend).

Effect of growth factors and cAMP on postnatal SC dedifferentiation: requirement of JNK but not MEK-ERK activity



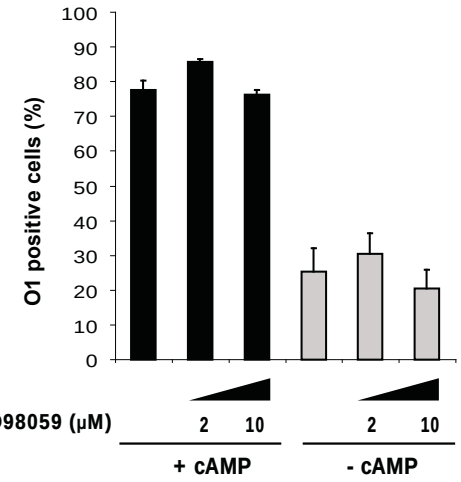
Serum and mitogen-deprived cultures of postnatal rat SCs were treated with CPT-cAMP as described for adult SCs. Three days after cAMP administration, the medium was supplemented with fresh cAMP (+cAMP) alone or in combination with the indicated mitogens, as described in Fig.1 (legend). Alternatively, cAMP was removed (-cAMP), either in the absence or presence of SP600125 (5 μM) and U0126 (10 μM), and cell were analyzed 3 d after as described in Fig. 7 (legend). Representative pictures of SC cultures immuno-stained for the O1 antigen are shown.

Activation of PKC by neuregulin in adult SCs



Cultures of adult SCs (undifferentiated) were stimulated for the indicated time points with neuregulin (10 nM), as described in Fig. 2 (legend). The activation of PKC (P-PKC) was assessed by western blot using phospho-antibodies recognizing a broad spectrum of activated PKC isoforms. The temporal profile of ERK and Akt activation is shown as a control for the effectiveness of the neuregulin treatment.

Effect of the MEK inhibitor PD98059 on adult SC dedifferentiation



Experimental conditions were identical to those described in Fig. 7 (legend) with the exception that the MEK inhibitor PD98059 was added to the culture medium at the time of cAMP re-addition (+cAMP) or removal (-cAMP). Three days after treatment with the inhibitor, the cells were fixed and immuno-stained for O1. A quantification of the number of cells expressing O1 is shown.