



**Fig. S1. Integrin- $\beta$ 1/rac1 promotes SC lamellipodia formation.** (A) Reduced rac1 activation ( $n=3$ ,  $P=0.003$ ) and rho activation ( $n=3$ ,  $P=0.0103$ ) in protein lysates obtained from P5 integrin- $\beta$ 1 mutant sciatic nerves. Total rac1 ( $n=3$ ,  $P=0.4445$ ) and total rho ( $n=3$ ,  $P=0.7767$ ) were not significantly changed. (B) Immunocytochemistry reveals the cytoskeleton of rac1 mutant and control SCs. The number of radial (arrows) ( $n=3$ ,  $P=0.0013$ ) and axial lamellipodia (arrow heads) ( $n=3$ ,  $P=0.0012$ ) is significantly reduced compared to controls. Error bars indicate  $\pm$ s.e.m. \* $P<0.05$ ; \*\* $P<0.005$ . Bar, 20  $\mu$ m. (C) Increased phospho-Pfn1 in protein lysates from P14 sciatic nerves of *Ilk* mutant mice ( $n=3$  CT and MU mice,  $P=0.028$ ) compared with those of controls ( $n=3$  CT and MU mice,  $P=0.028$ ). Total levels of Pfn1 are not significantly changed ( $n=3$  CT and MU mice,  $P=0.8736$ ).