

Supplementary Materials

β Pix guanine nucleotide exchange factor regulates regeneration of injured peripheral axons

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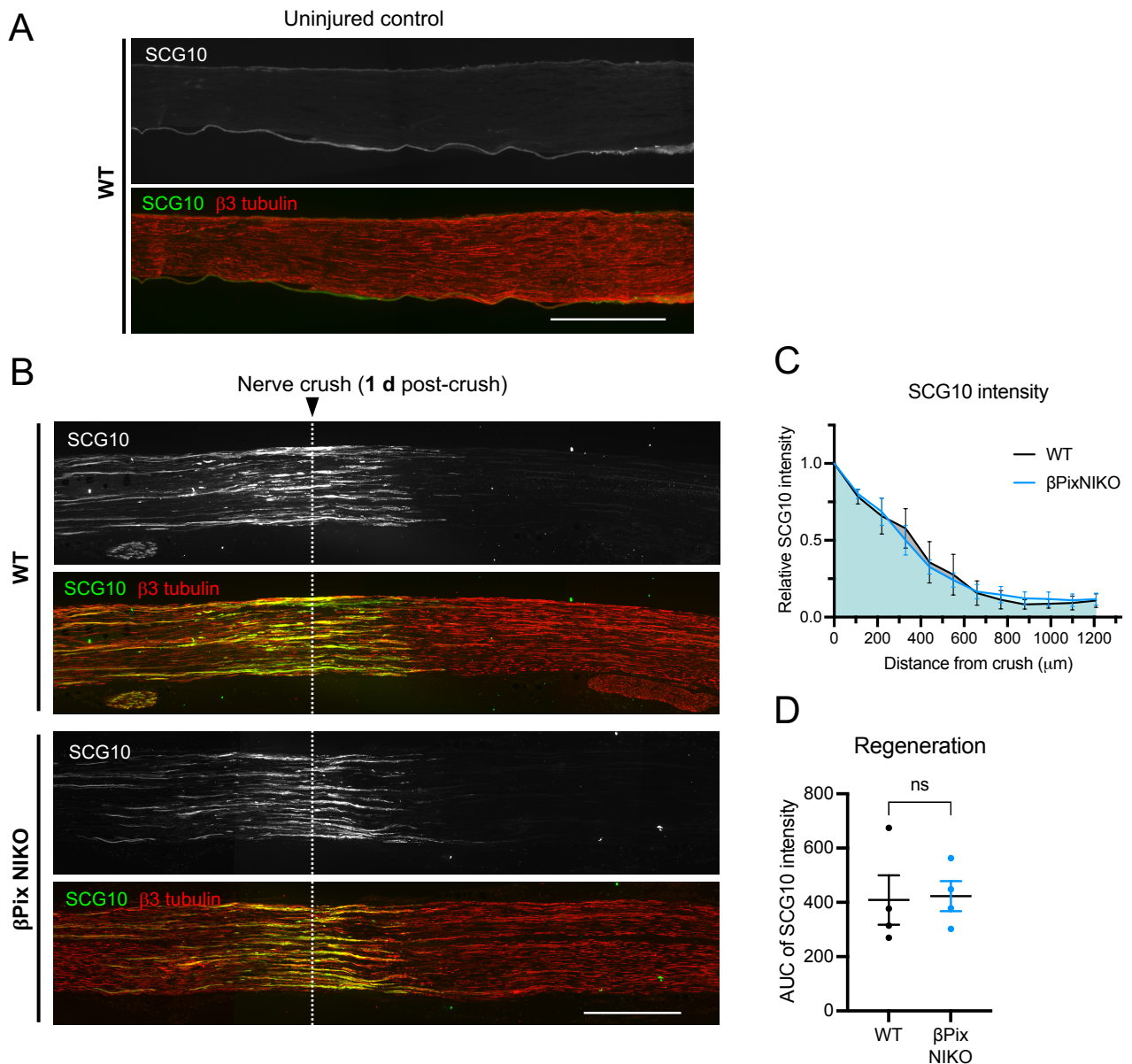


Figure S1. Axon regeneration one day after sciatic nerve crush injury, related to Figure 3F-3H

A. Longitudinal section of uninjured wild-type (WT) mouse sciatic nerve, stained for SCG10 (a regenerating axonal marker) and $\beta 3$ tubulin. The basal SCG10 level is very low. Scale bar, 500 μm .

B. Longitudinal sections of WT and βPix neuronal isoform knockout (NIKO) mouse sciatic nerves one day after crush injury, stained for SCG10 and $\beta 3$ tubulin. SCG10 immunoreactivity reveals axonal regeneration up to approximately 500 μm -distal to the injury site in both genotypes. Scale bar, 500 μm .

C. Data shown in (B) were subjected to intensity analysis for SCG10. SCG10 intensity was not significantly different between the genotypes ($n = 4$).

D. Area under curve (AUC) values of SCG10 intensity plots shown in (C) were not significantly different between the genotypes ($n = 4$).

Error bars represent mean \pm SEM.

Figure S1, Jeon et al.

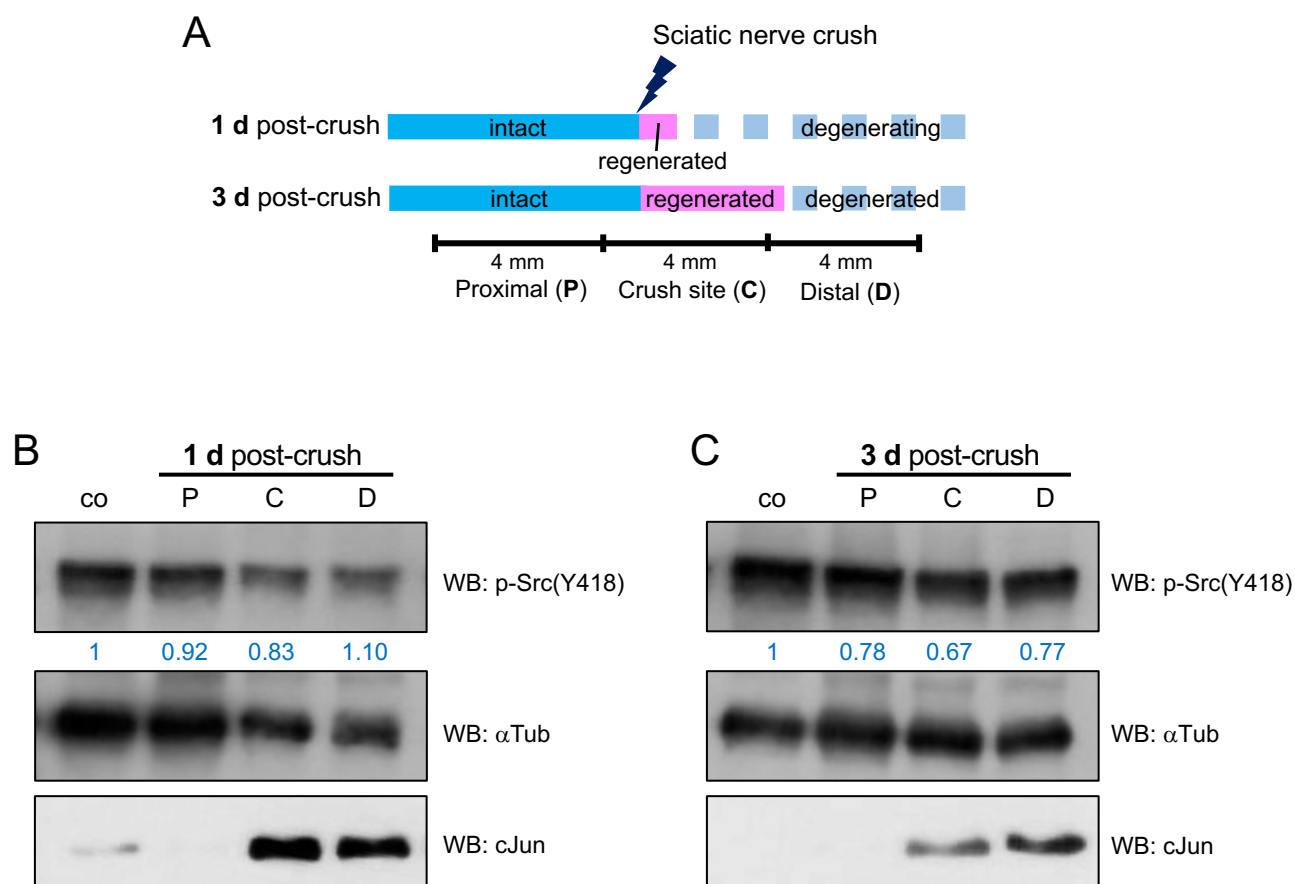


Figure S2. Phosphorylated Src levels after sciatic nerve crush injury, related to Figure 5

A. Schematic diagram of crushed sciatic nerve, depicting proximal (P), crush site (C), and distal (D) segments. Pink box indicates the region with regenerating axons at one or three days after injury.

B-C. Western blot results showing phosphorylated Src (p-Src Y418) levels in indicated nerve segments one day (panel B) or three days (panel C) after crush. p-Src Y418 levels are shown as relative values to uninjured control nerve (co) after normalization to the loading control, α Tub. cJun upregulation in the crush sites and distal segments is used as a marker of nerve injury.

Raw images used in Figure 1D

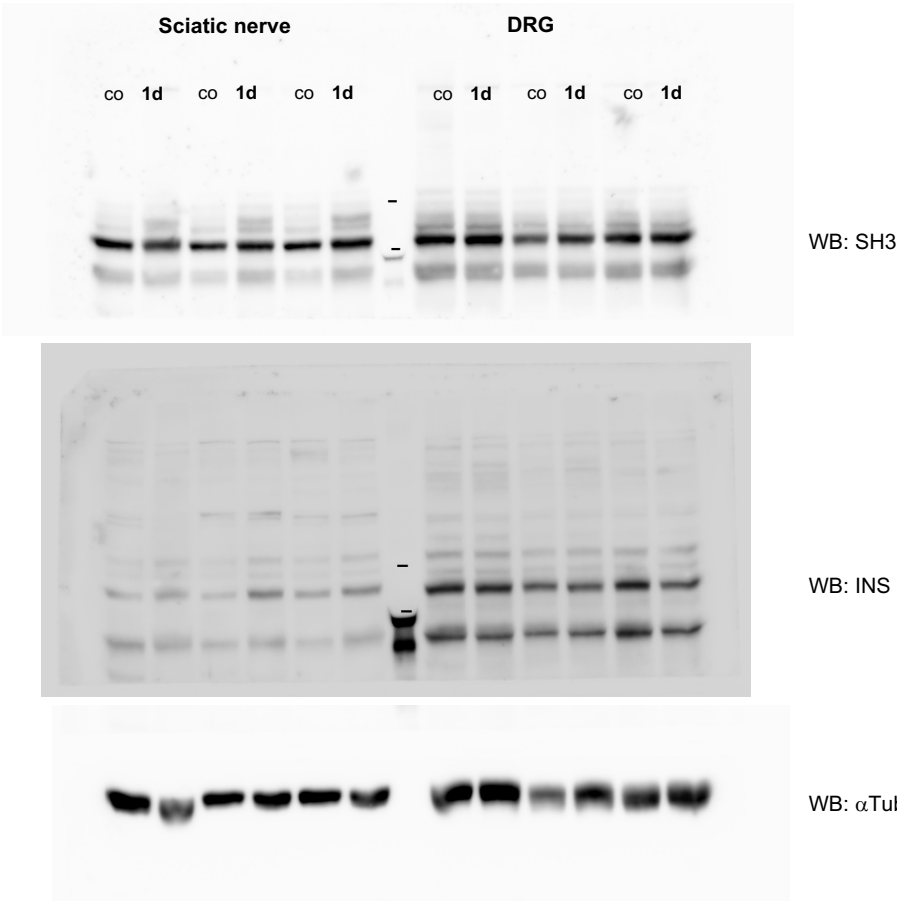


Figure S3A, Jeon et al.

Raw images used in Figure 1F

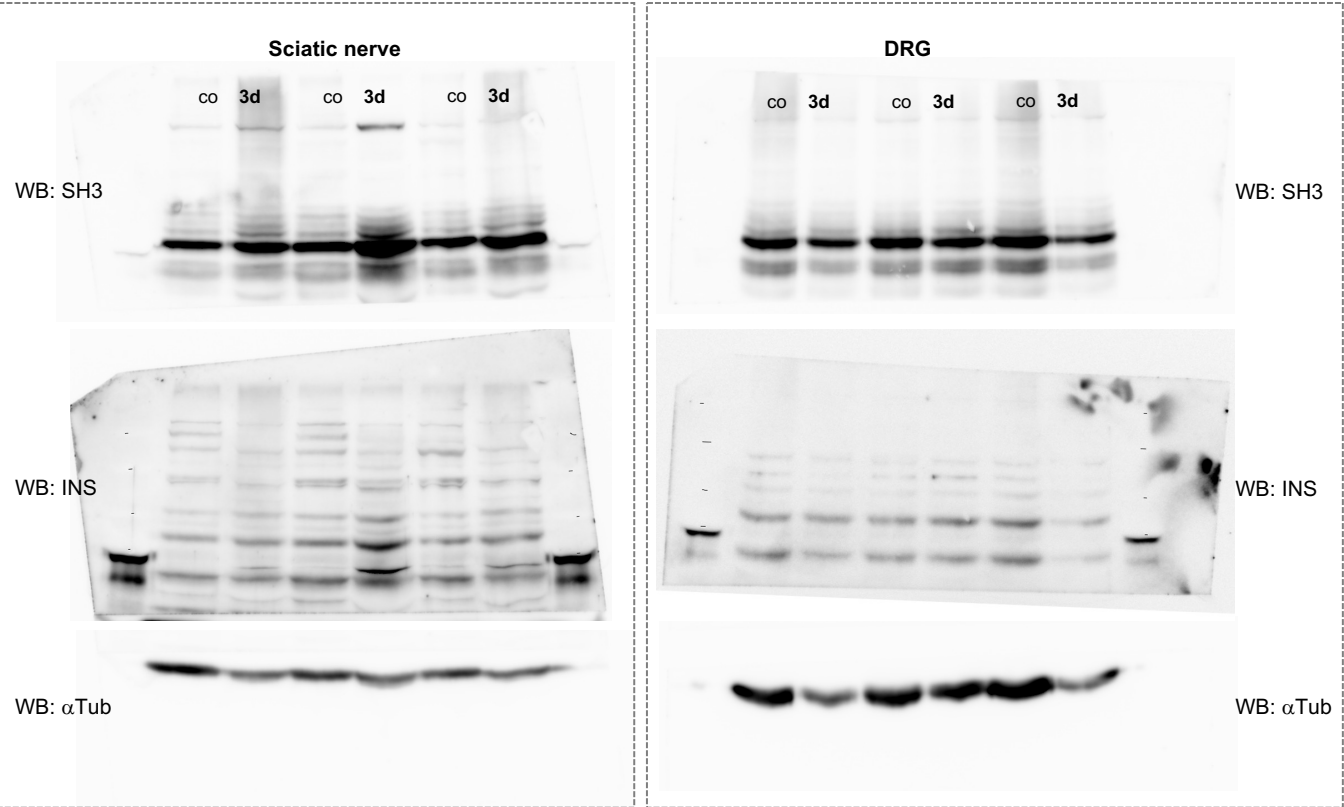
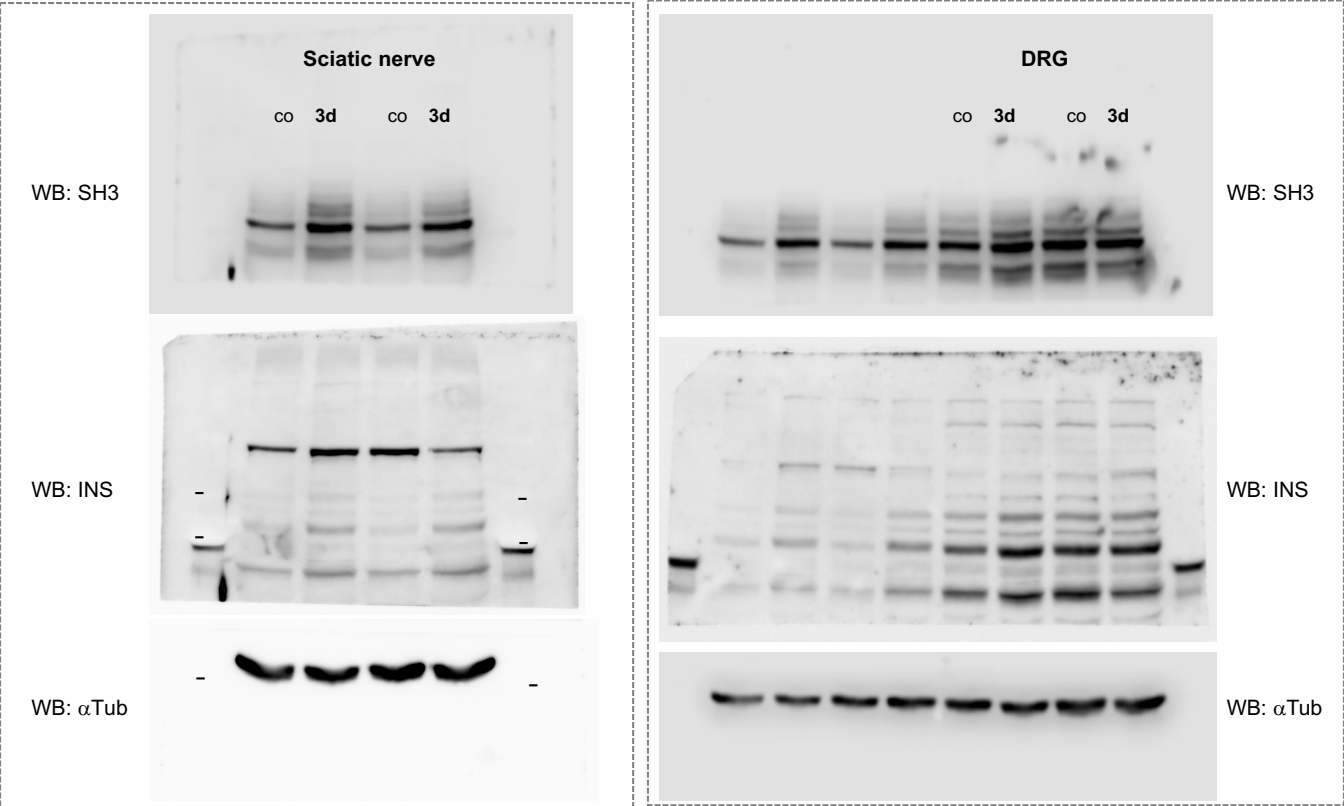


Figure S3B, Jeon et al.

Raw images used in Figure 1H

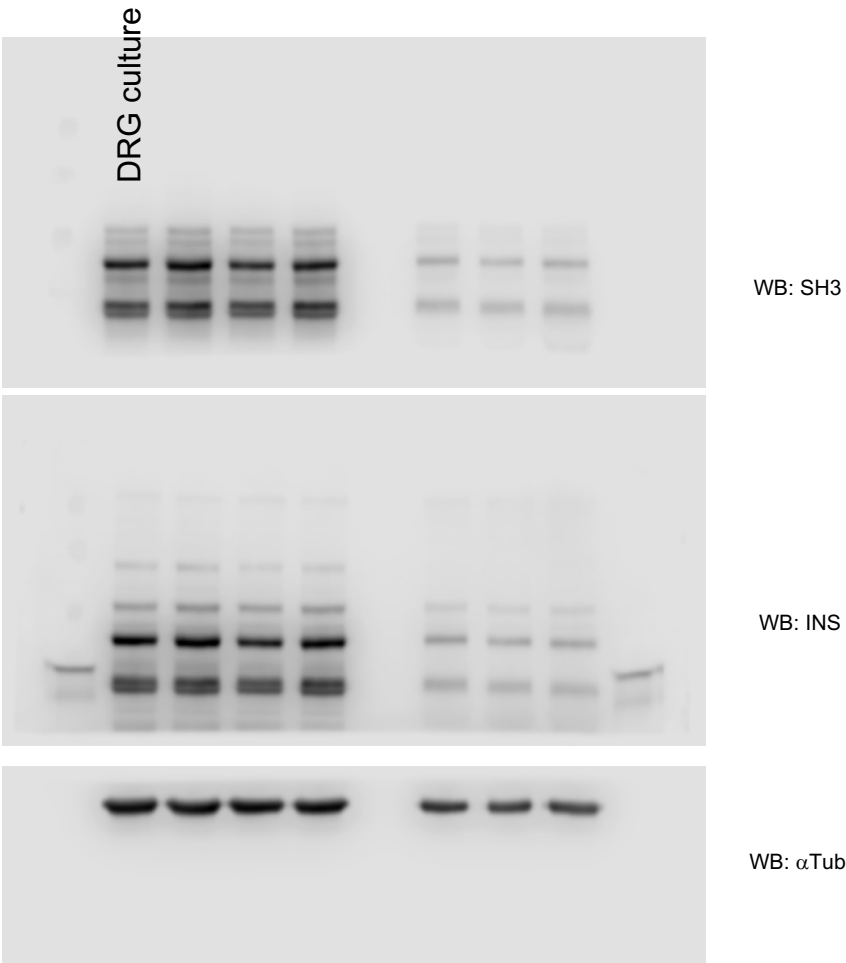


Figure S3C, Jeon et al.

Raw images used in Figure 1I

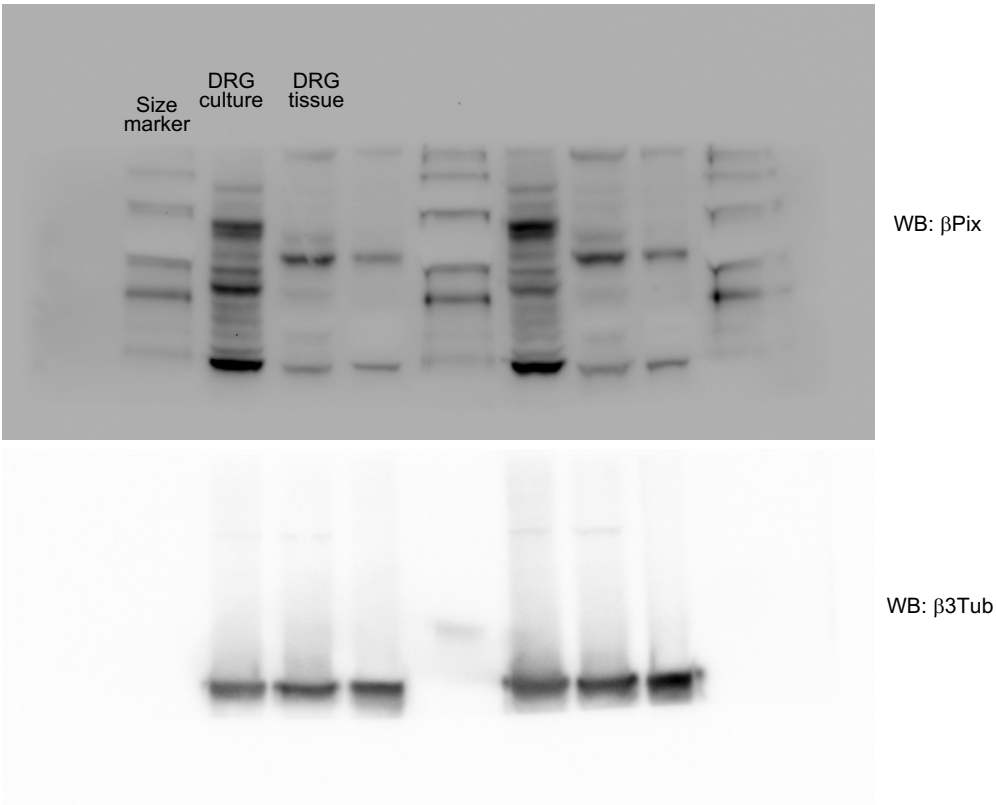
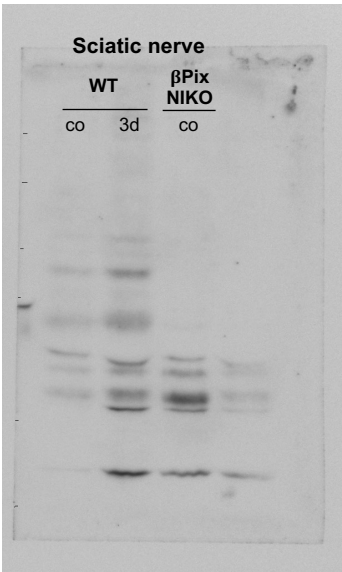
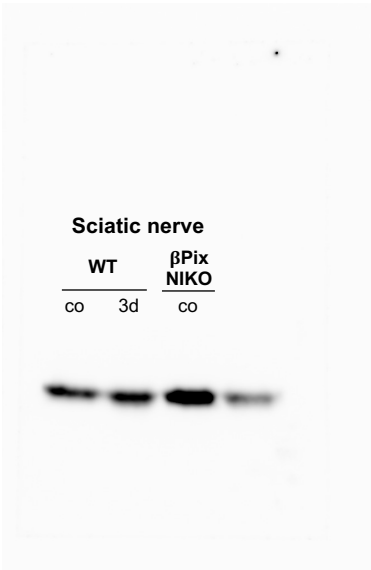


Figure S3D, Jeon et al.

Raw images used in Figure 3A



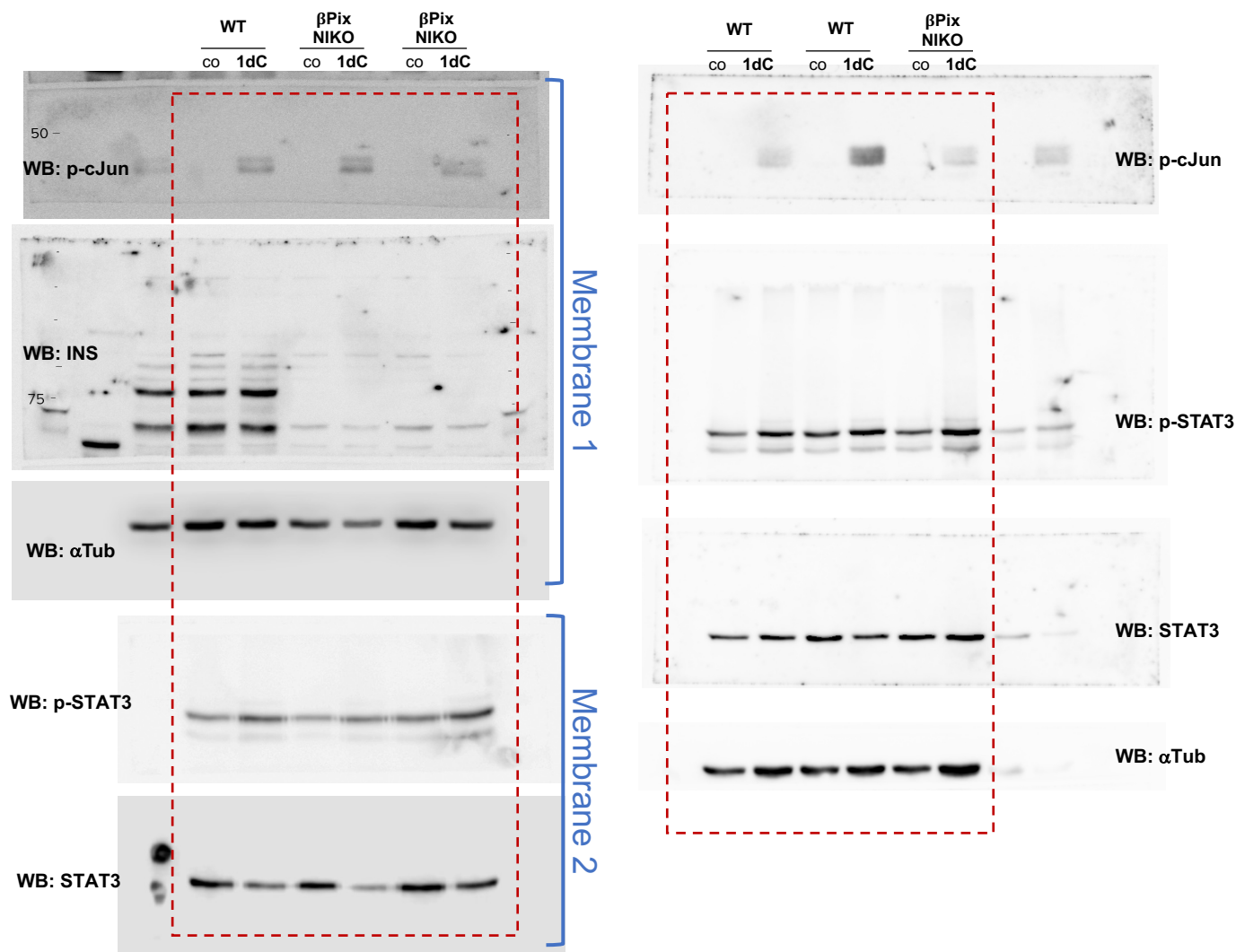
WB: INS



WB: α Tub

Figure S3E, Jeon et al.

Raw images used in Figure 4A



The dotted red boxes indicate the data used for quantification. Other lanes were not used because the loading control levels were abnormally low.

Figure S3F, Jeon et al.