

Functional coupling of Slack channels and P2X3 receptors contributes to neuropathic pain processing

Ruirui Lu,^{1,*} Katharina Metzner,¹ Fangyuan Zhou,¹ Cathrin Flauaus,¹ Annika Balzulat,¹

Patrick Engel,¹ Jonas Petersen,¹ Rebekka Ehinger,² Anne Bausch,² Peter Ruth,²

Robert Lukowski,² and Achim Schmidtko¹

¹ Institut für Pharmakologie und Klinische Pharmazie, Goethe-Universität Frankfurt am Main, 60438 Frankfurt am Main, Hessen, Germany

² Pharmakologie, Toxikologie und Klinische Pharmazie, Institut für Pharmazie, Universität Tübingen, 72076 Tübingen, Baden-Württemberg, Germany

* Correspondence: Lu@em.uni-frankfurt.de; Telephone: +49-69-798-29377 (R. Lu).

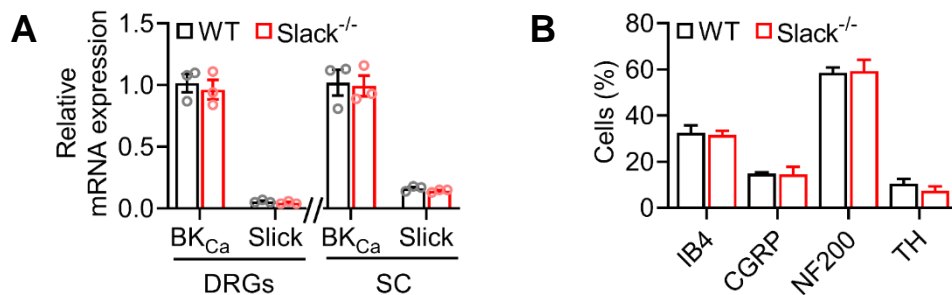


Figure S1.

(A) Expression of BK_{Ca} mRNA and Slick mRNA in dorsal root ganglia (DRGs) and the spinal cord (SC) from wild-type (WT) and Slack^{-/-} mice. Multiple t tests; $p = 0.6467, 0.3486, 0.8526,$ and $0.2219,$ respectively.

(B) Percentages of DRG neurons binding isolectin B4 (IB4) or immunoreactive for calcitonin gene-related peptide (CGRP), neurofilament 200 (NF200) or tyrosine hydroxylase (TH) are similar in WT and Slack^{-/-} mice. Multiple t tests; $p = 0.8105, 0.9366, 0.9122,$ and $0.3266,$ respectively.

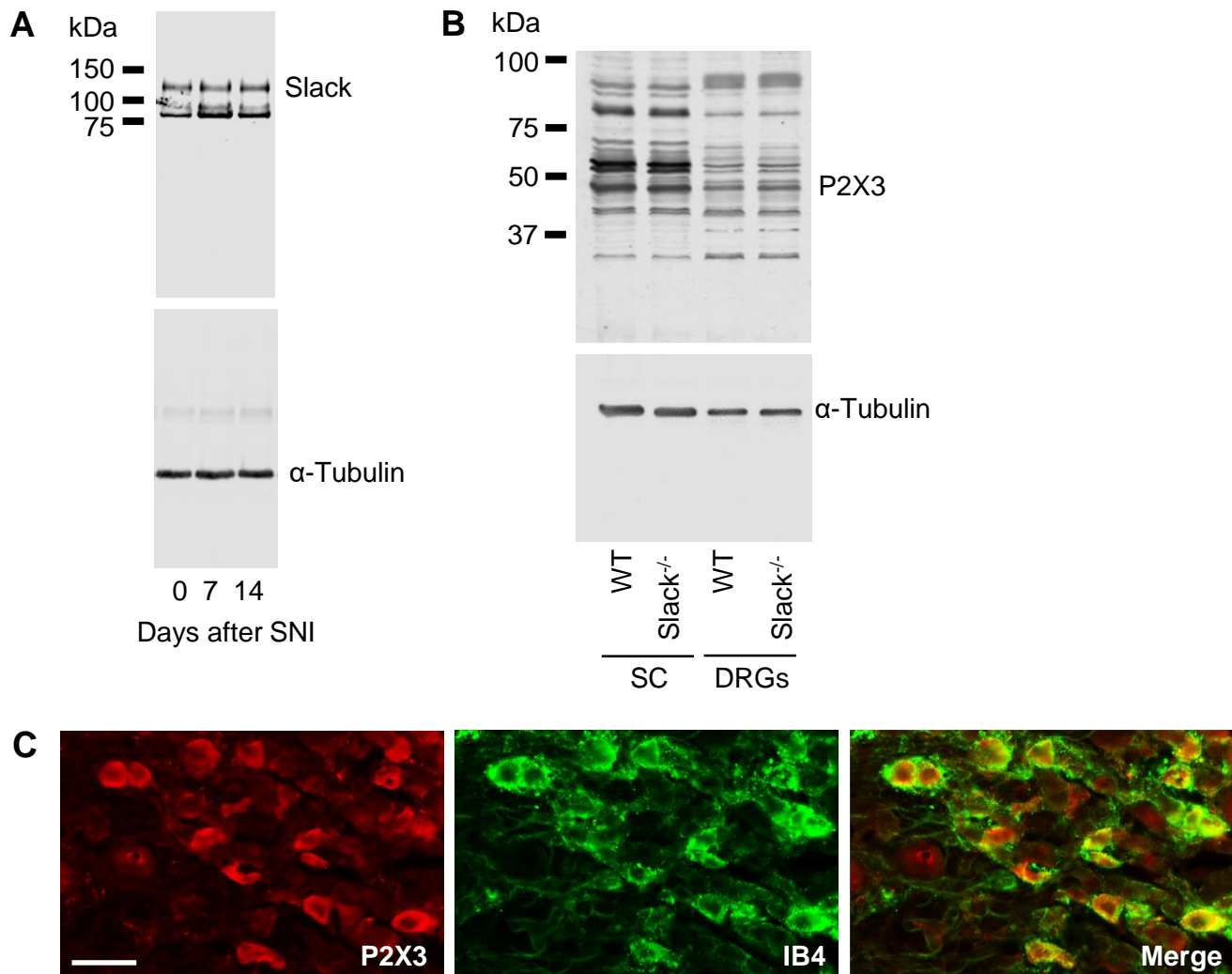


Figure S2.

(A) Western blot of spinal cord extracts show similar Slack protein expression in naive mice (0) and 7 or 14 days after SNI surgery. Uncropped original image of Figure 3E.

(B) Western blot of P2X3 in spinal cord (SC) and DRGs from WT and $Slack^{-/-}$ mice. Uncropped original image of Figure 4E.

(C) Double-labeling immunostaining of P2X3 and binding of IB4 in DRG neurons revealed that the vast majority of P2X3-positive neurons bind IB4. Scale bar: 50 μ m.