

Supplementary Information

Early DNase-I therapy delays secondary brain damage after traumatic brain injury in adult mice

Tobias J. Krämer^{1,2}, Florian Pickart¹, Bruno Pöttker¹, Christina Gölz¹, Axel Neulen³,

Tobias Pantel³, Hermann Goetz⁴, Katharina Ritter¹, Michael K. E. Schäfer^{1, 5, 6, 7*} & Serge C. Thal^{1, 5, 7, 8*}

¹Department of Anesthesiology, University Medical Center of Johannes Gutenberg University,
Langenbeckstrasse 1, 55131 Mainz, Germany.

²Faculty of Health, University Witten/Herdecke, Witten, Germany.

³Department of Neurosurgery, University Medical Center of Johannes Gutenberg University, Langenbeckstrasse
1, 55131 Mainz, Germany.

⁴Cell Biology Unit, University Medical Center of Johannes Gutenberg
University, Langenbeckstrasse 1, 55131 Mainz, Germany.

⁵Focus Program Translational Neurosciences, University Medical Center of Johannes Gutenberg University,
Langenbeckstrasse 1, 55131 Mainz, Germany.

⁶Research Center for Immunotherapy, University Medical Center of Johannes Gutenberg University,
Langenbeckstrasse 1, 55131 Mainz, Germany.

⁷Center for Molecular Surgical Research, University Medical Center of Johannes Gutenberg University,
Langenbeckstrasse 1, 55131 Mainz, Germany.

⁸Department of Anesthesiology, Helios University Hospital Wuppertal, University Witten/Herdecke,
Heusnerstrasse 40, 42283 Wuppertal, Germany.

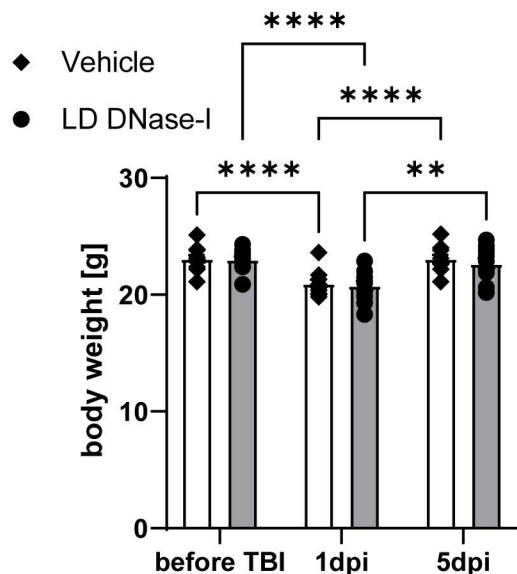
* equal contribution

Figure S1:

a anti-IgG dot-blot



b Influence on body weight (5dpi)



c Influence on functional outcome (5dpi)

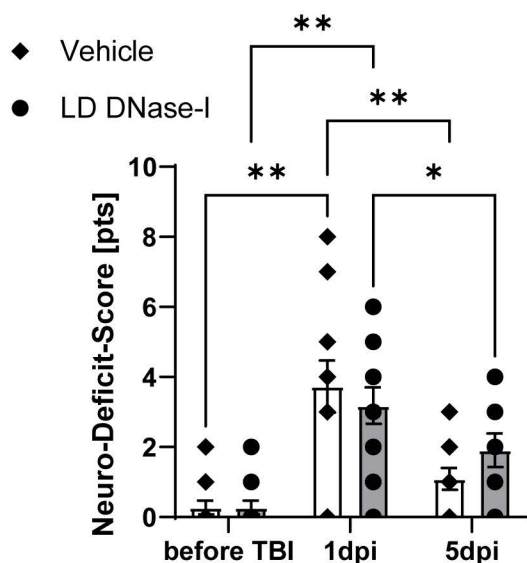
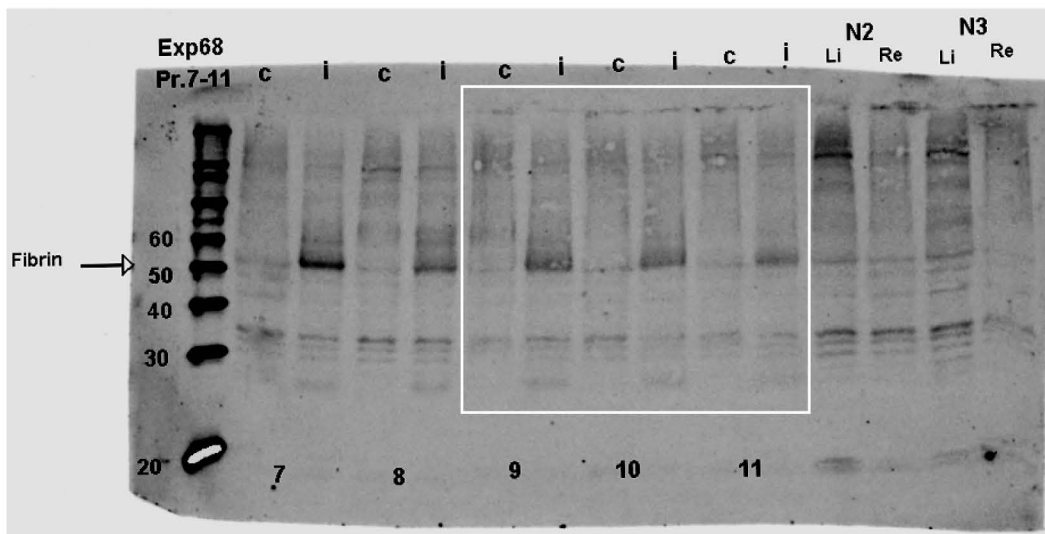


Figure S1: **(a)** Anti-IgG dot-blots with samples from Vehicle (numbers 8, 9, 12, 16, 18, 20, 24 and 27, underlined in yellow color), LD DNase-I (numbers 6, 7, 13, 14, 17, 22, 25 and 28, underlined in blue color) and Sham animals (Numbers 1, 2, 3, 4, 29, 30, 31 and 32, underlined in white color). Quantification of this experiment is shown in Figure 3D. The blot contains additional samples, which are not relevant for the present study (numbers 5, 10, 11, 15, 19, 21, 23, and 26, not underlined). **(b)** Body weight was significantly decreased at 1dpi and recovered at 5dpi, without difference between Vehicle and LD DNase-I treatment groups. **(c)** The Neuro-Deficit-Score was induced after trauma at 1dpi and decreased at 5dpi. No significant differences were observed between Vehicle and LD DNase-I treatment groups.

Figure S2:

a



b

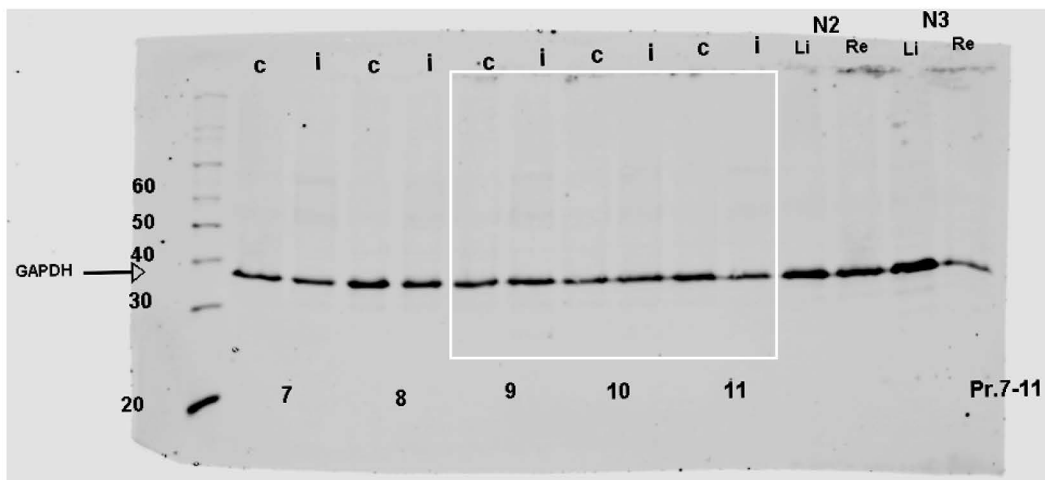


Figure S2: **(a, b)** Western blot membrane probed with antibodies specific for fibrin beta 2 **(a)** or GAPDH **(b)**. The molecular mass marker is shown in the first lane. The framed areas show samples 9-11, presented in Fig. 5b of the article. The area was horizontally flipped for clarity in Fig. 5b. Sample 9: TBI-vehicle, samples 10, 11: TBI-DNase-I, i=ipsilesional, c= contralesional).