Electronic Supplementary Material (ESI) for Lab on a Chip.

Partial treatment of single axons reveals a connected cytoskeleton network in generating axonal tension

Supplementary Figure

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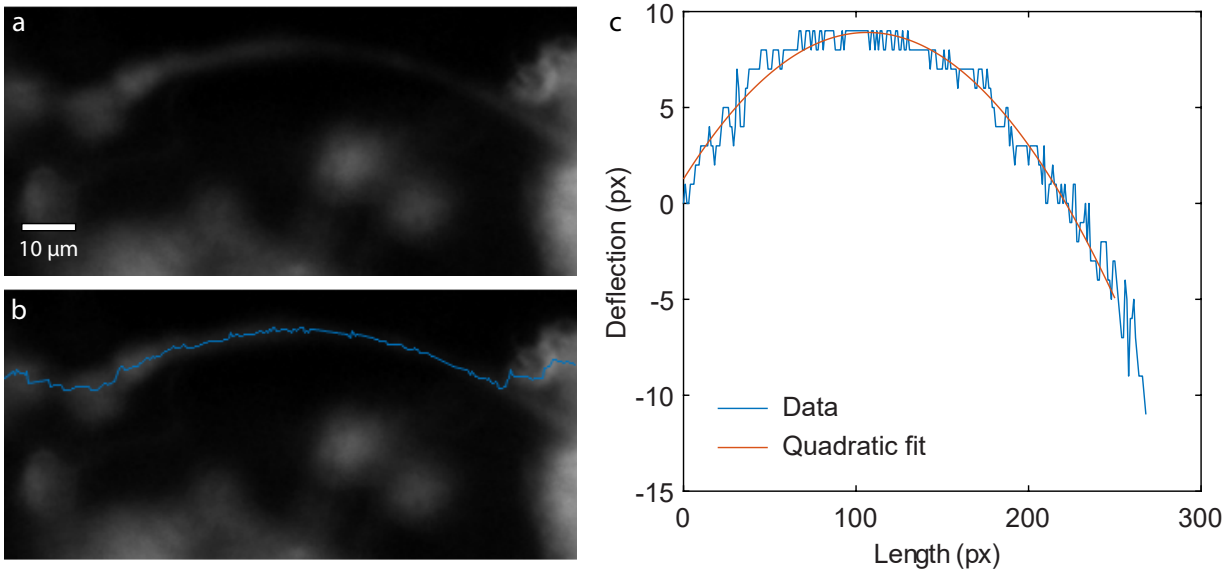
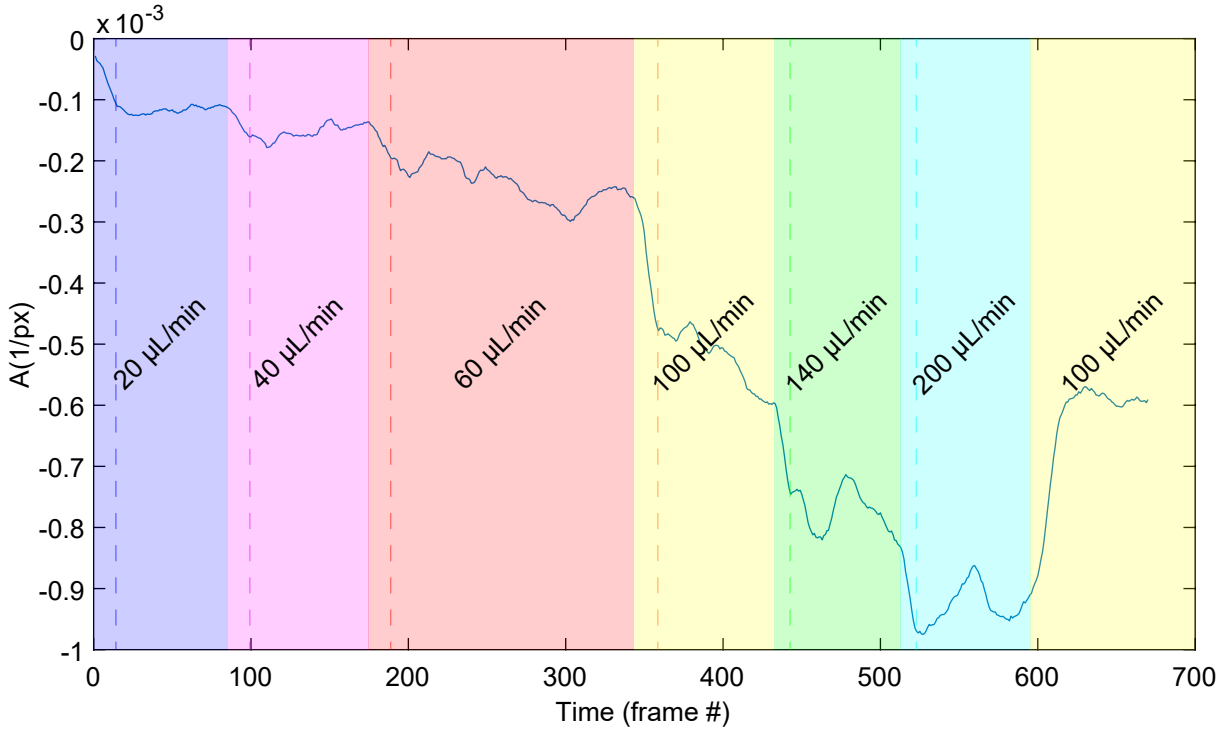
Figure S1



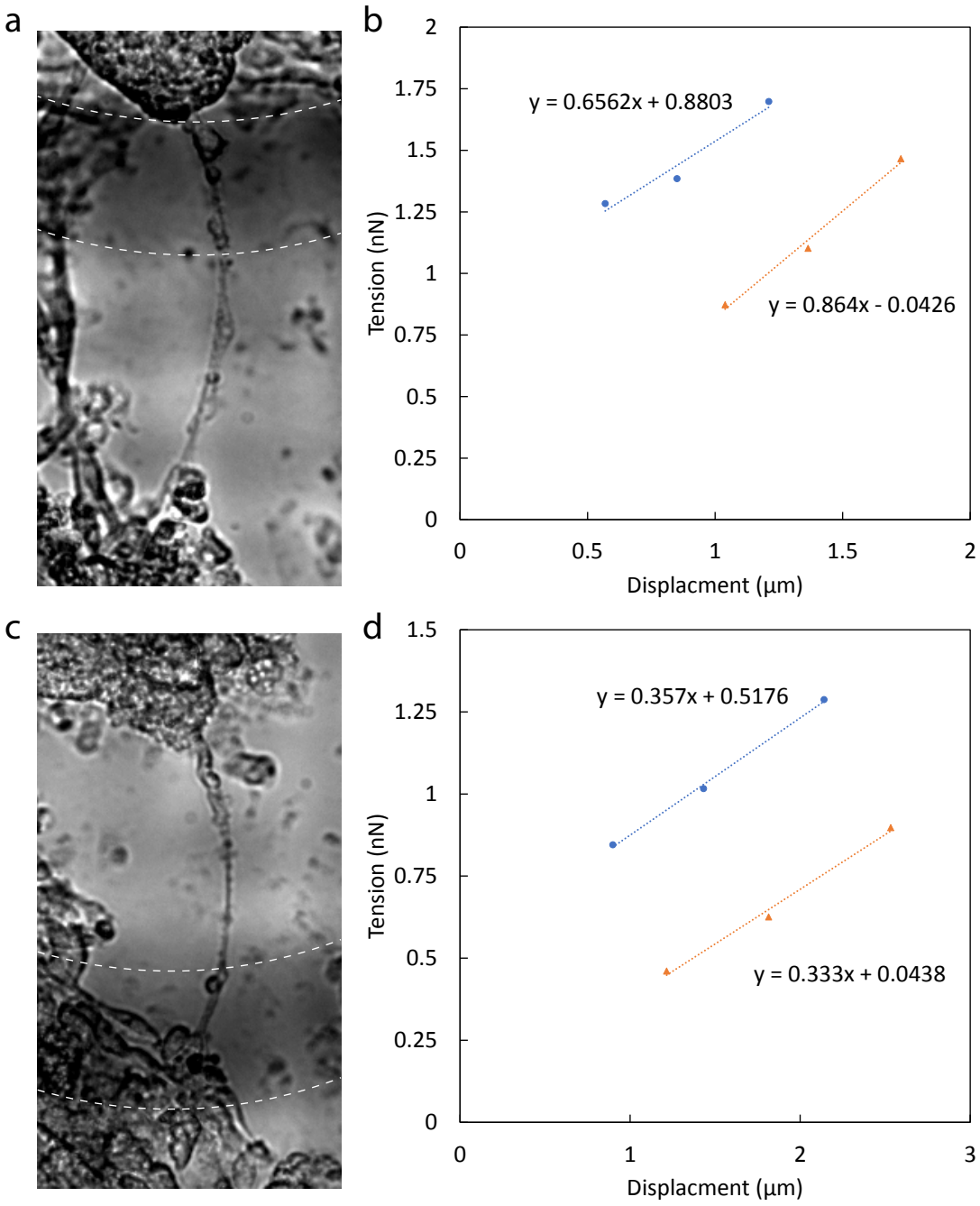
An axon (a) before and (b) after image analysis. The blue line in b traces the profile of the axon. (c) An obtained axon profile is translated such that the point closest to the CNS is at the origin. The profile is fitted to a quadratic function and the coefficients A and B in Eq. 9 (main text) is obtained.

Figure S2



A sample profile of the coefficient A under the influence of increasing flow rate from 20 to 100 μL/min. The dotted line in each region indicates the immediate elastic response after the increased load.

Figure S3



Y-27632 flow applied to an axon towards (a) the CNS side or (c) the NMJ side. (b & d) Respective tension-stretch curves of the axons under partial treatment (red) and subsequent pbs washout (blue). Total rest tension loss is observed in both cases.