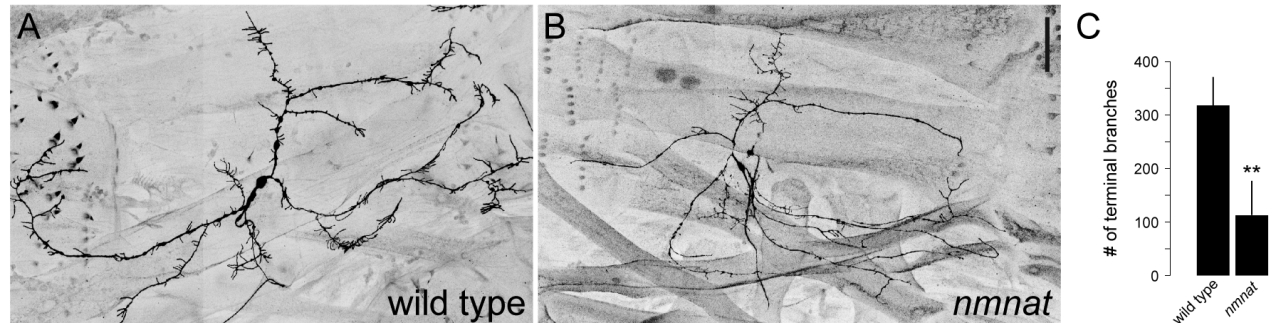


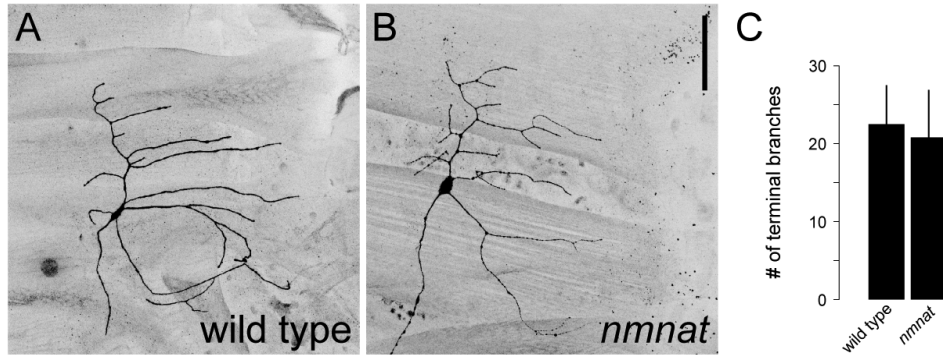
Nmnat exerts neuroprotective effects in dendrites and axons

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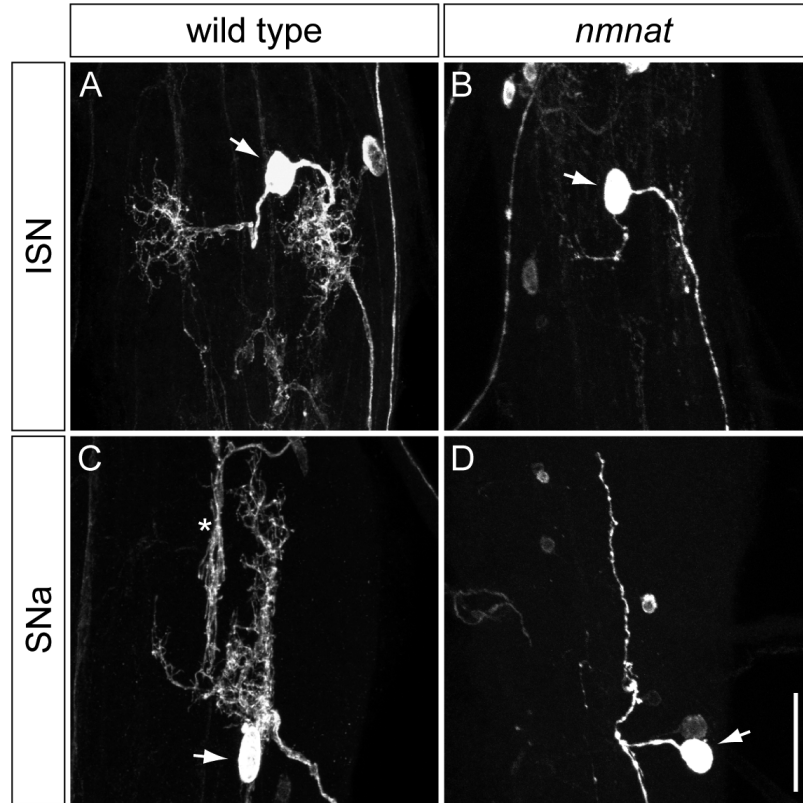
Supplementary Figures



Supplementary Figure 1. *nmnat* mutants are defective in terminal dendritic branching of class III neurons. **(A)** Morphology of class III ddaA dendrites in a wild-type third instar larva MARCM clone. Actin-rich protrusions (dendritic spikes) decorate the length of the dendrites. **(B)** The number of dendritic spikes is significantly reduced in *nmnat*^{A4792} ddaA clones. **(C)** Quantification of total number of terminal dendritic branches (mean ± SD) in ddaA neurons for wild-type ($n = 10$) and *nmnat*^{A4792} ($n = 11$) clones. Double asterisk denotes $p < 0.001$ relative to wild-type controls (Student's t -test). Anterior is left and dorsal is up. Scale bar, 50 μm .



Supplementary Figure 2. Loss of *nmnat* function does not cause a significant change in terminal dendritic branching of class I neurons. **(A)** Morphology of class I ddaE dendrites in a wild-type third instar larva MARCM clone. Class I dendrites have few terminal branches. **(B)** The number of dendritic branches is not significantly reduced in *nmnat*⁴⁷⁹² ddaE clones. **(C)** Quantification of total number of terminal dendritic branches (mean ± SD) in ddaE neurons for wild-type ($n = 12$) and *nmnat*⁴⁷⁹² ($n = 16$) clones. Anterior is left and dorsal is up. Scale bar, 50 μm .



Supplementary Figure 3. Dendritic branching of different subclasses of motor neurons is reduced in *nmnat* mutants. (A,B) Dendrite morphology of an intersegmental nerve (ISN) motor neuron clone in wild-type (A) and *nmnat*⁴⁴⁷⁹² mutant (B). (C,D) Dendrite morphology of a segmental nerve a (SNa) motor neuron clone in wild-type (C) and *nmnat*⁴⁴⁷⁹² mutant (D). Arrows indicate cell body. Asterisk indicates interneuron projection. Scale bar, 25 μ m.