

Supplementary Table 1. Modification of the *Sema1a*-overexpression-induced axonal hyper-fasciculation phenotype by reducing the dosage of other genes

Genotype	Number of axons or axon bundles ^a	Number of hemispheres examined
<i>wt</i>	30.8 ± 6.7 ^b	25
<i>GMR-GAL4, UAS-semala/+</i>	17.6 ± 2.8	21
<i>2XGMR-GAL4,UAS-semala</i>	8.0 ± 3.4	21
<i>GMR-GAL4, UAS-semala; abl²/+</i>	18.0 ± 3.6	21
<i>GMR-GAL4, UAS-semala; bif^{R47}/+</i>	19.8 ± 3.6	18
<i>GMR-GAL4, UAS-semala; chic²²¹/+</i>	19.5 ± 5.3	18
<i>GMR-GAL4, UAS-semala; capu^{M732}/+</i>	19.2 ± 5.7	19
<i>GMR-GAL4, UAS-semala; cdc42³/+</i>	18.7 ± 3.9	24
<i>GMR-GAL4, UAS-semala; dock^{P2}/+</i>	19.1 ± 4.5	11
<i>GMR-GAL4, UAS-semala; ena^{GC1}/+</i>	18.7 ± 4.3	18
<i>GMR-GAL4, UAS-semala; klar^{mBX5}/+</i>	21.4 ± 6.4	18
<i>GMR-GAL4, UAS-semala; paki⁶/+</i>	19.8 ± 3.9	22
<i>GMR-GAL4, UAS-semala; nervy¹/+</i>	18.1 ± 2.4	15
<i>GMR-GAL4, UAS-semala; Rac1^{J11}Rac2^ΔMtl^Δ/+</i>	17.0 ± 3.2	23
<i>GMR-GAL4, UAS-semala; Rho1^{E3.10}/+</i>	7.3 ± 4.8 ^c	23

^a The number of axons or axon bundles that separated from neighboring bundles at the region between lamina and medulla were counted. The data was normalized with the row number of R-cell clusters in the eye disc.

^b Standard deviation

^c Compared to *Sema1a* overexpression alone, reducing the dosage of *Rho1* by 50% in larvae overexpressing *Sema1a* significantly enhanced the hyper-fasciculation phenotype ($P < 0.0001$).