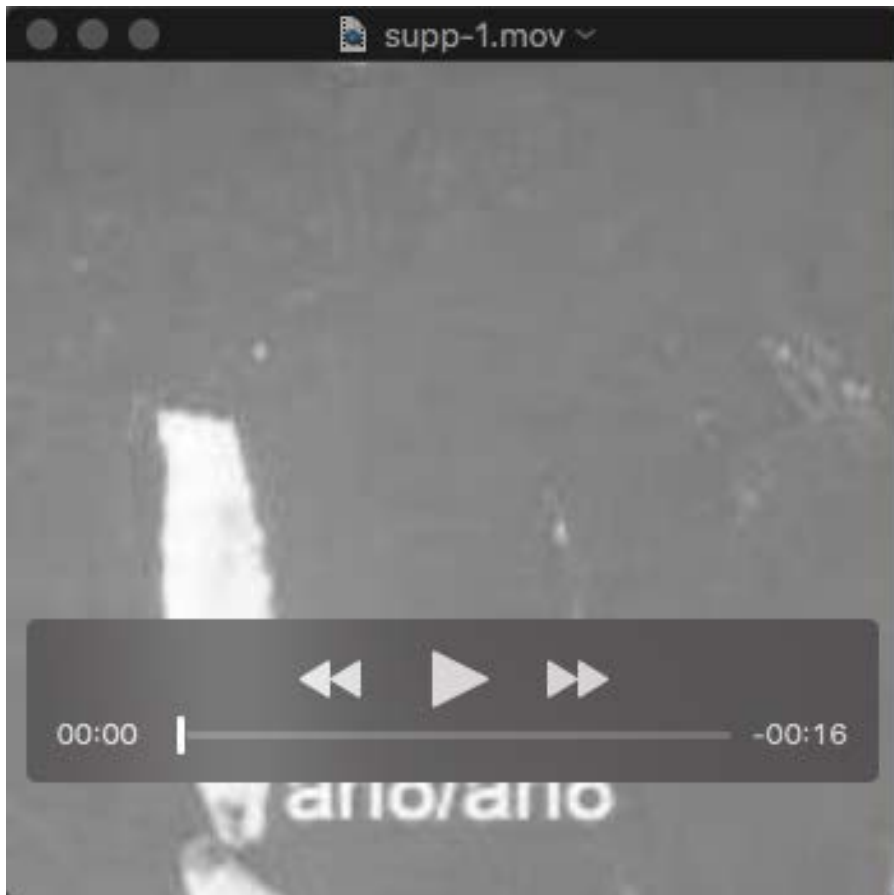


Supplementary information



Movie S1. Loss of Arl8 affects larval crawling.

A wandering third instar larva of wild-type (w^{1118}) and of the $Arl8^{KO1}/Arl8^{KO1}$ mutant, which presents posterior paralysis, visible by the upward curve its most distal segments.



Movie S2. Rescue of larval crawling by expression of Arl8 in motor neurons.

Movie of larvae expressing Arl8-GFP under the control of the indicated drivers, which, except for Mef2, fully rescue larval movement and the tail flipping phenotype of the *Arl8^{KO1}/Arl8^{KO1}* mutant. The fly lines used were: *w⁻*; P{W⁺ UAST-Arl8 GFP}/Cyo; PBac{RB}Gie^{e00336}/ TM6B; *w⁻*; act5C GAL4/Cyo; PBac{RB}Gie^{e00336}/ TM6B; *w⁻*; n-syb-GAL4/Cyo; PBac{RB}Gie^{e00336}/ TM6B; *w⁻*; C164-GAL4/Cyo; PBac{RB}Gie^{e00336}/ TM6B and *w⁻*; Mef2 GAL4/Cyo; PBac{RB}Gie^{e00336}/ TM6B.

Table S1. Mass spectrometric analysis of proteins binding to Arl8 by affinity chromatography.

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