

Supplementary Table 1. Similar phenotypes upon global depletion of all Elongator subunits in flies.

Different Elongator subunits, as well as partners, were depleted in the whole fly using indicated RNAi construct and DaGal4 driver. Note that depletion of all elongator subunits lead to the same phenotype, as expected for multiprotein complexes. Also note that established partners of Elongator in other systems, CTU2 and Kti11/DPH3^{43,44}, do not show the larva lethality phenotype characteristic of Elongator depletion. This might indicate that either the biochemical connection to Elongator is not conserved in flies, or that these proteins are too abundant for RNAi depletion to have a phenotype.

Driver	Target	Gene description	RNAi line reference	Phenotype
daGal4	<i>Elp1</i>	Elongator subunit	VDRC #109402	lethal in L3 larvae
daGal4	<i>Elp2</i>	Elongator subunit	VDRC #105393	lethal in L3 larvae
daGal4	<i>Elp3</i>	Elongator subunit	NIG #15433R-3	lethal in L3 larvae
daGal4	<i>Elp4</i>	Elongator subunit	VDRC #22460	lethal in L3 larvae
daGal4	<i>Elp5</i>	Elongator subunit	VDRC #20785	lethal in Pupae
daGal4	<i>HSC70-4</i>	Elongator associated protein	BDSC 35684	lethal in L3 larvae
daGal4	<i>CTU1</i>	Elongator downstream effector	VDRC #104409	lethal in L3 larvae
daGal4	<i>CTU2 #1</i>	Elongator downstream effector	VDRC #52087	viable
daGal4	<i>CTU2 #2</i>	Elongator downstream effector	VDRC #100704	viable
daGal4	<i>Kti11/DPH3</i>	Elongator downstream effector	VDRC #28517	viable

Supplementary Table 2. Rescue ability of the different constructs used in this study.

The ability of the indicated RNAi-resistant Elp3* constructs to rescue the characteristic phenotype of Elp3 depletion in the whole fly was assessed. Note that both Elp3* and GFP-Elp3* can rescue the phenotype, on the contrary to Elp3*-YY531AA, which abolishes the enzymatic activity of Elp3. Also that Elp3 Y531F is able to rescue the phenotype, while it was proposed to be dominant negative in flies⁴². This might suggest that this allele is a hypomorph rather than an amorph allele in this specific assay.

Driver	Rnai	Rescue construct	Phenotype
			lethal in L3
daGal4	<i>Elp3RNAi</i>	none	larvae
daGal4	<i>Elp3RNAi</i>	Elp3*	viable
daGal4	<i>Elp3RNAi</i>	GFP-Elp3*	viable
daGal4	<i>Elp3RNAi</i>	Elp3* Y531F	viable
			lethal in L3
daGal4	<i>Elp3RNAi</i>	Elp3* YY531AA	larvae