

Table S2. RNAi phenotype of potential myosin light chain kinases in a *let-502* mutant background

Genotype	Human ortholog	Elongation arrest at 25.5°C*	Penetrance [†]
N2		No	98%
<i>let-502(sb118ts)</i>		2-fold	98%
<i>let-502(sb118ts);spk-1(RNAi)</i>	SR-protein-specific kinase 1	2-fold	90%
<i>slet-502(sb118ts);dapk-1(RNAi)</i>	Death-associated protein kinase 1	2-fold	91%
<i>let-502(sb118ts);aak-1(RNAi)</i>	AMPK alpha-1 chain	2-fold	95%
<i>let-502(sb118ts);aak-2(RNAi)</i>	AMPK alpha-2 chain	2-fold	94%
<i>let-502(sb118ts);gck-1(RNAi)</i>	STE20-like kinase	2-fold	95%
<i>let-502(sb118ts);gck-2(RNAi)</i>	MEKKK 5	2-fold	92%
<i>let-502(sb118ts);mig-15(RNAi)</i>	MEKKK 4	2-fold	95%
<i>let-502(sb118ts);ZC373.4(RNAi)</i>	MLCK	2-fold	83%
<i>let-502(sb118ts);mrck-1(RNAi)</i>	MRCK	1.2-fold	90%
<i>let-502(sb118ts);pak-1(RNAi)</i>	p21-activated kinase 1	1.2-fold	98%

*N2 and *let-502(sb118ts)* young adults were injected with double-stranded RNA and subsequently stored at 25.5°C overnight. Synchronized embryos (8-10 hours after egg laying) were observed 24 hours after injection. N2 did not show any major embryonic elongation defect.

[†]Penetrance corresponds to the percentage of embryos showing the described embryonic elongation arrest*. Other phenotypes were observed (i.e. early embryonic arrest) but are not mentioned in this table. For each genotype, $n \geq 40$ embryos.