An Embryonic Myosin Isoform Enables Stretch Activation and Cyclical Power in *Drosophila* Jump Muscle

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Supplemental Material for Zhao et al.

Table 1. Work and power generation from jump muscle fibers at three phosphate concentrations

Pi (mM)	Control Fibers		EMB Fibers		EMB fibers	
	Negative work (nJ/mm^3)	Positive work (nJ/mm^3)	Negative work (nJ/mm^3)	Positive work (nJ/mm^3)	Work loop Power (W/m^3)	Sinusoidal Power (W/m^3)
0	-152.6±19.8(9)	147.9±19.3(9)	-432.2±45.1(9)	361.3±59.1(9)	-4.8±1.8 (9)	<0 (21)
8	-106.6 ±17.2(8)	103.4±16.5(8)	-238.9±22.4(10)*	239.4±22.5(10)*	1.3±1.6 (10)*	2.1±0.4 (21)*
16	-64.7±8.0(7)*	63.0±7.8 (7)*	-221.9±16.2(9)*	223.1±16.0(9)*	8.1±2.9 (10)*	3.6±0.5 (21)*

Negative work is work done while the fiber is being lengthened. Positive work is work done while shortening. Two techniques of measuring power, work loops and sinusoidal analysis, both showed that EMB generated positive power at 8 and 16 mM Pi. Values are mean ± S.E.M. (N) * $P<0.05$ significantly different from 0mM Pi, student's *t-test*.