

## **Supplemental Data**

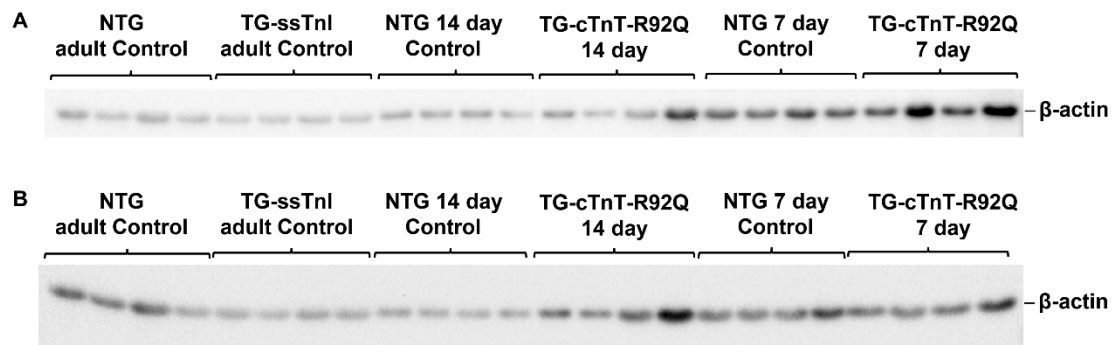
Effects of Sarcomere Activators and Inhibitors Targeting Myosin Cross-Bridges on  $\text{Ca}^{2+}$ -Activation of Mature and Immature Mouse Cardiac Myofilaments

Monika Halas\*, Paulina Langa\*, Chad M. Warren, Paul H. Goldspink, Beata M. Wolska, R. John Solaro

\* These authors contributed equally to the manuscript.

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**Supplemental Figure S1. Western blot images probed with  $\beta$ -actin.** NTG, non-transgenic; TG-ssTnI, transgenic-slow skeletal troponin I; TG-cTnT-R92Q, transgenic cardiac troponin T with a single site mutation at position 92; day, age of animals in days; WT cTnT, wild type cardiac troponin T. **(A)** Loading control for Figure 1 panel A that was probed for troponin I isoforms. **(B)** Loading control for Figure 1 panel D that was probed for troponin T isoforms.

**Supplemental Table S1. Ca<sup>2+</sup>-activated percent control change of tension for TG and NTG mouse fibers treated with 0.3 μM OM or Mava.**

Skinned Fibers	Treatment	% of Control Tension Change <sup>a</sup>		
		pCa 6.0	pCa 5.85	pCa 5.75
NTG adult (n=5)*	OM 0.3 μM	551.7±197.90	250.0±91.07	152.40± 40.25
TG-ssTnl adult (n=5)	OM 0.3 μM	124.30 ±19.88 <sup>b</sup>	112.64±17.39 <sup>c</sup>	104.05±12.94 <sup>d</sup>
NTG 7d (n=7)	OM 0.3 μM	201.80±63.50	128.18±26.99	111.30±18.92
NTG 14d (n=6)	OM 0.3 μM	389.06±186.74	139.38±28.17	106.35±10.56
NTG adult (n=5)**	Mava 0.3 μM	22.14 ± 16.05	21.14 ± 10.44	19.12 ± 9.75
TG-ssTnl adult (n=6)	Mava 0.3 μM	35.88 ± 32.30	28.11 ± 13.03	32.97 ± 17.01
NTG 7d (n=3)	Mava 0.3 μM	63.02±48.00	49.49±14.63	40.47±14.01
TG-cTnT-R92Q 7d (n=7)	Mava 0.3 μM	37.18±14.77	42.21±14.82	47.33±14.50
NTG 14d (n=4)	Mava 0.3 μM	33.44 ± 29.61	9.22 ± 4.50	13.35 ± 5.42
TG-cTnT-R92Q 14d (n=5)	Mava 0.3 μM	18.66±13.61	30.95±14.44 <sup>e</sup>	38.15±15.82 <sup>f</sup>

<sup>a</sup>Percent change in tension of treated fibers versus untreated controls. <sup>b</sup>P=0.0082, 95% CI of diff.

[-672.50 to -182.30] when compared to NTG adult, Welch's test; <sup>c</sup>P=0.0266, 95% CI of diff.

[-249.40 to -25.23] when compared to NTG adult, Welch's test; <sup>d</sup>P=0.0079, 95% CI of diff. [-91.98

to -4.77] when compared to NTG adult, Welch's test; <sup>e</sup>P=0.0251, 95% CI of diff. [4.08 to 39.38]

when compared to NTG adult Control Welch's test; <sup>f</sup>P=0.210, 95% CI of diff. [5.01 to 44.59] when

compared to NTG adult Control unpaired t-test, assuming equal SD. \*NTG adult controls (n=5)

data presented in Figure 2; \*\*NTG adult controls (n=5) data presented in Figure 5. Data are

presented as mean ± SD; Student's t-test. NTG, non-transgenic, TG-ssTnl, transgenic slow

skeletal Troponin I; TG-cTnT-R92Q, transgenic cardiac troponin T with a point mutation at R92Q;

OM, omecamtiv mecarbil; Mava, mavacamten.