

## SUPPLEMENTAL INFORMATION

# Endogenous Cardiac Troponin T Modulates Ca<sup>2+</sup>- Mediated Smooth Muscle Contraction

### By

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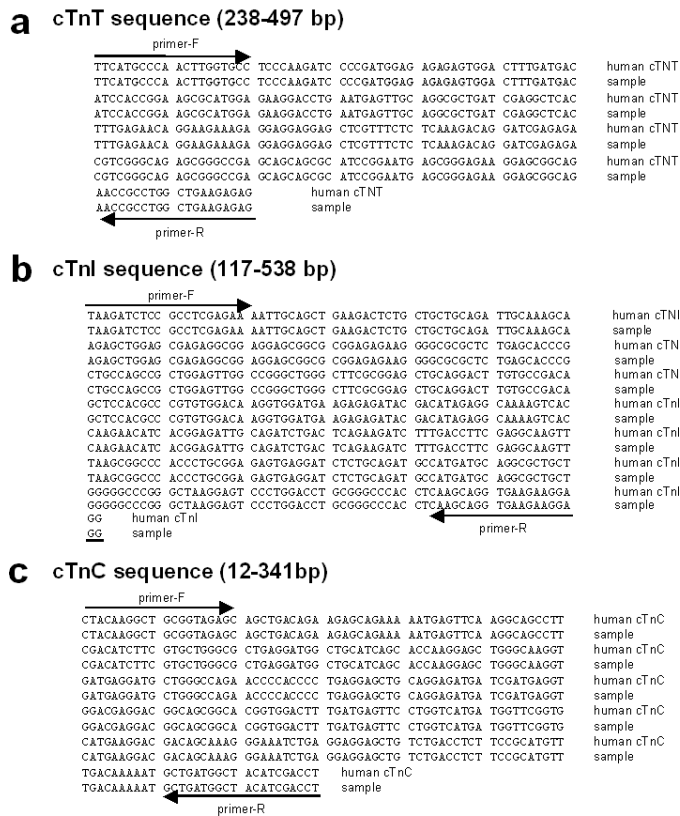
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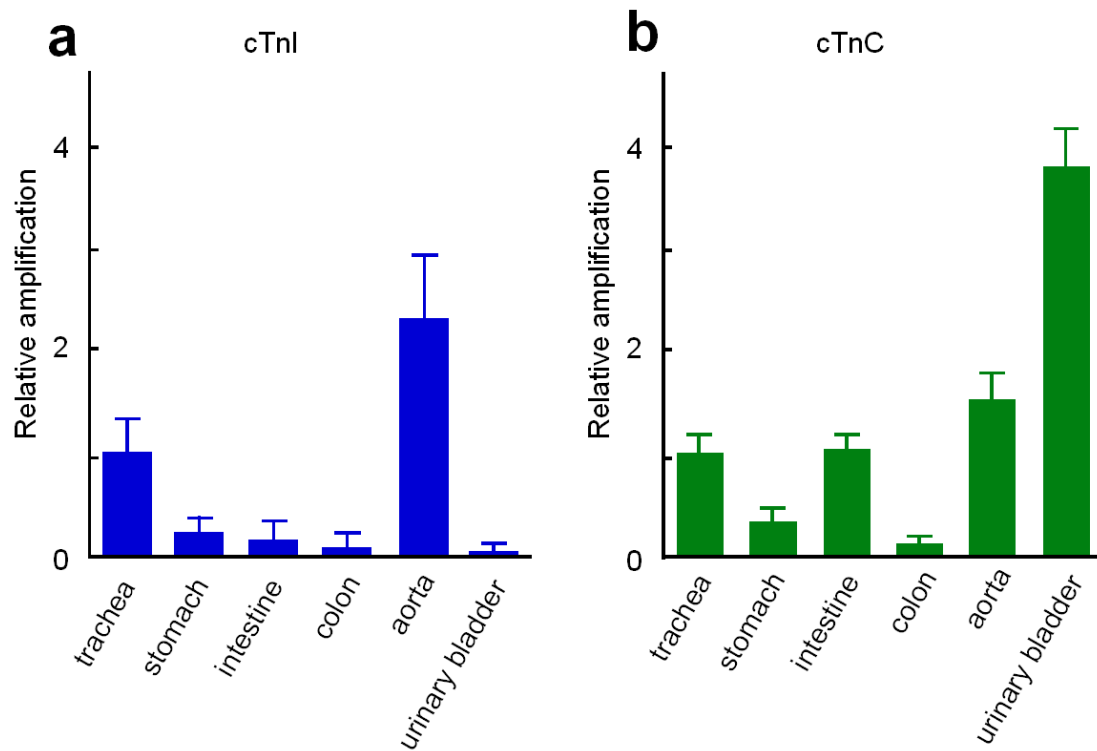
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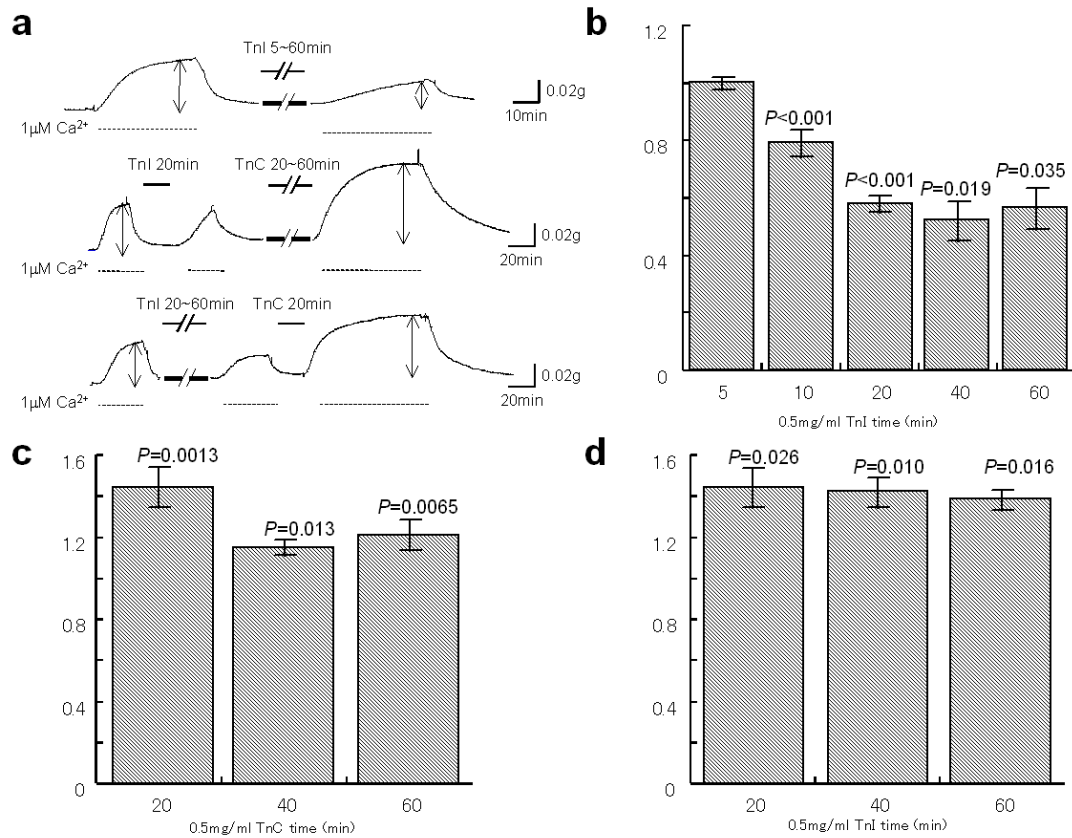
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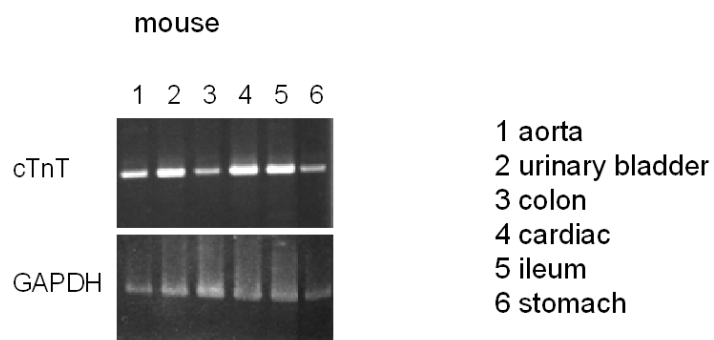
**Figure S1 | The partial DNA sequence of human cTnT, cTnI and cTnC.** PCR primers used are indicated by arrows. The sequences were exactly the same as known sequences of cDNAs of cTnT (238-497 bp), cTnI (117-538 bp) and cTnC (12-341bp) in human detrusor, respectively.



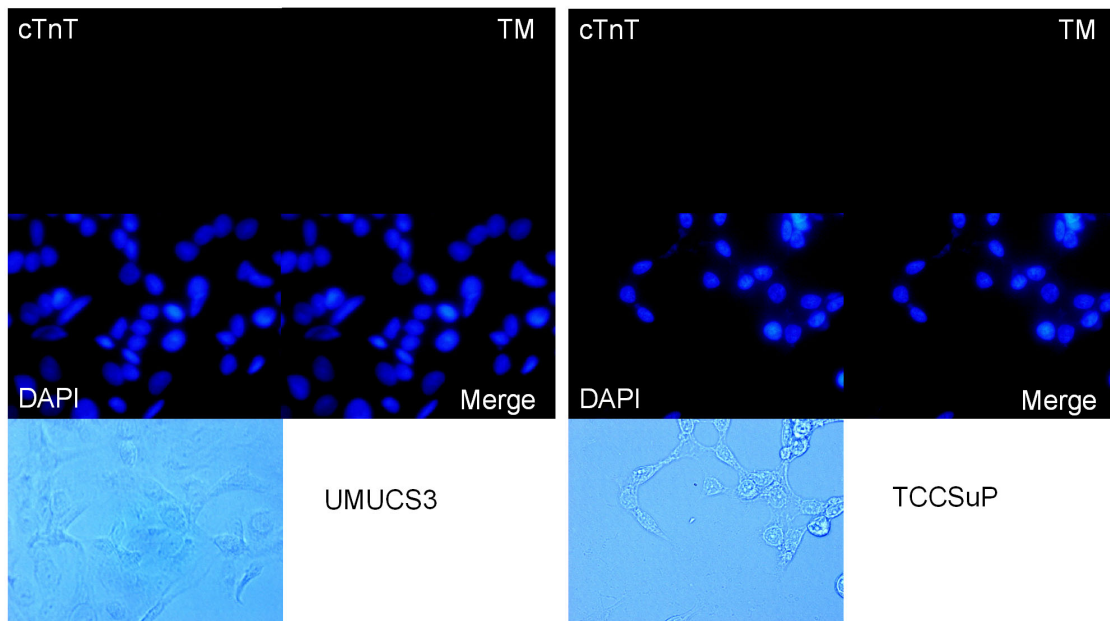
**Figure S2 | Real-time PCR quantification of cTnI (a) and cTnC (b) in tRNA of various human smooth muscle tissues.** All tRNA were purchased commercially. The mRNA expression of cTn in each smooth muscle tissue was compensated by that of GAPDH, and is plotted relative to that of trachea.



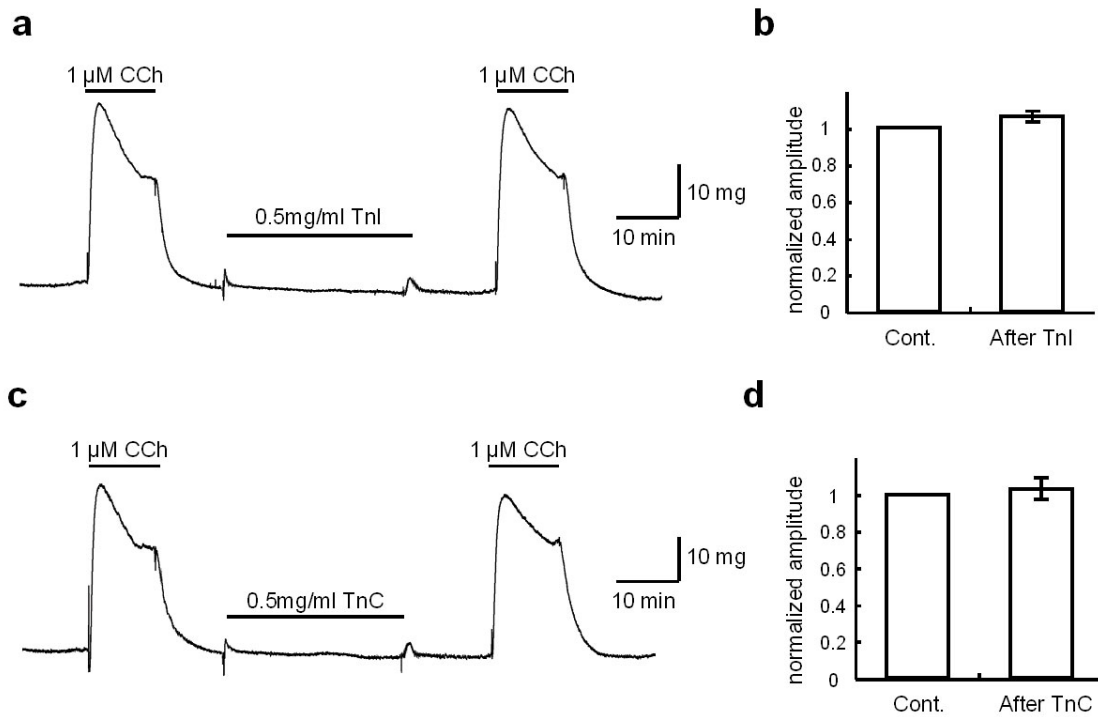
**Figure S3 | Time dependency of cTnI and cTnC effects on pig detrusor strip.** Pig detrusor strips were permeabilised with 20  $\mu\text{M}$   $\beta$ -escin for 30 min. **a**) Each trace indicates an experimental protocol performed to examine the effect of exposure time to cTnI and/or cTnC. **b-d**) Changes in force development are summarized ( $n=8-12$ ). Each column represents the mean  $\pm$  S.E. measured at each condition indicated by arrows when the amplitude of the contraction obtained at 1  $\mu\text{M}$   $\text{Ca}^{2+}$  was normalized as 1.0. The  $P$  value of each column was expressed when there was a significant difference ( $P < 0.05$ ) in comparison with that induced by 1  $\mu\text{M}$   $\text{Ca}^{2+}$ .



**Figure S4 | RT-PCR detection of cTnT in murine smooth muscle.** tRNA were extracted from the several tissues of mice. In urinary bladder, colon, ileum and stomach, the mucous was removed carefully.



**Figure S5 | Negative controls.** Neither cTnT nor tropomyosin was detected in UMUCS3 and TCCSuP human urinary bladder carcinoma cells. Micrographs of cellular nuclei (blue: DAPI), and transmission are also shown.



**Figure S6 | Lack of effects of cTnI and cTnC in intact detrusor strips from human.**

Either cTnI or cTnC were applied between CCh-induced contractions (**a, c**). The peak amplitude of contraction did not change after applications of cTnI and cTnC ( $P > 0.05$ ,  $n=6$ ) (**b, d**).