

S4 Table. Kinetic parameters of the interaction of troponin complexes containing wildtype cTnI (WT) or cTnI-R170G/W with actin and tropomyosin measured by surface plasmon resonance. k_{on} is the association rate constant, k_{off} is the dissociation rate constant, K_D is the dissociation constant. Data are given as value \pm SEM, n is the number of measurements.

| Interaction | | WT | R170G | R170W |
|--------------------|-------------------------------------|--|--|--|
| actin | k_{on} [$M^{-1}s^{-1}$] | $3880 \pm 3 \cdot 10^{-1}$ | $5430 \pm 2 \cdot 10^{-3}$ | $2610 \pm 6 \cdot 10^{-2}$ |
| | k_{off} [s^{-1}] | $2.07 \cdot 10^{-2} \pm 1 \cdot 10^{-6}$ | $1.74 \cdot 10^{-2} \pm 7 \cdot 10^{-9}$ | $1.65 \cdot 10^{-2} \pm 4 \cdot 10^{-7}$ |
| | K_D [μM] | $5.34 \pm 5 \cdot 10^{-4}$ | $3.20 \pm 2 \cdot 10^{-6}$ | $6.32 \pm 2 \cdot 10^{-4}$ |
| tropomyosin | k_{on} [$M^{-1}s^{-1}$] | $1.58 \cdot 10^7 \pm 4 \cdot 10^2$ | $2.86 \cdot 10^7 \pm 2.1 \cdot 10^2$ | $7.1 \cdot 10^6 \pm 8 \cdot 10^2$ |
| | k_{off} [s^{-1}] [s^{-1}] | $32.4 \pm 3 \cdot 10^{-4}$ | $3.1 \pm 6 \cdot 10^{-3}$ | $1.63 \pm 4 \cdot 10^{-4}$ |
| | K_D [μM] | $2.05 \pm 6 \cdot 10^{-5}$ | $0.12 \pm 2 \cdot 10^{-4}$ | $0.23 \pm 6 \cdot 10^{-5}$ |
| | n | 3 | 3 | 3 |