Supporting Information for:

Regulation of nonmuscle myosin II by tropomyosin

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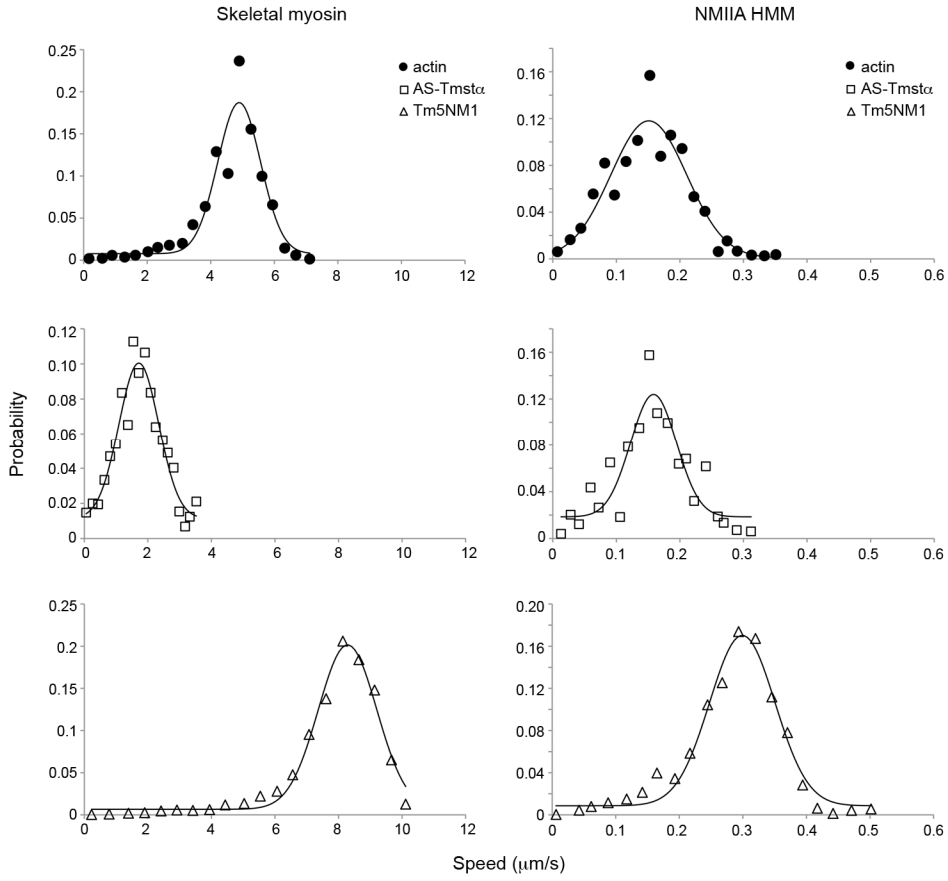

FIGURE S1. Velocity probability distributions for actin, actin-AS-Tmstα and actin-Tm5NM1 on skeletal myosin and NMIIA HMM. Each plot is from a representative experiment. The data was fit to a Gaussian distribution to determine the mean speed ± S.D. for each experiment.

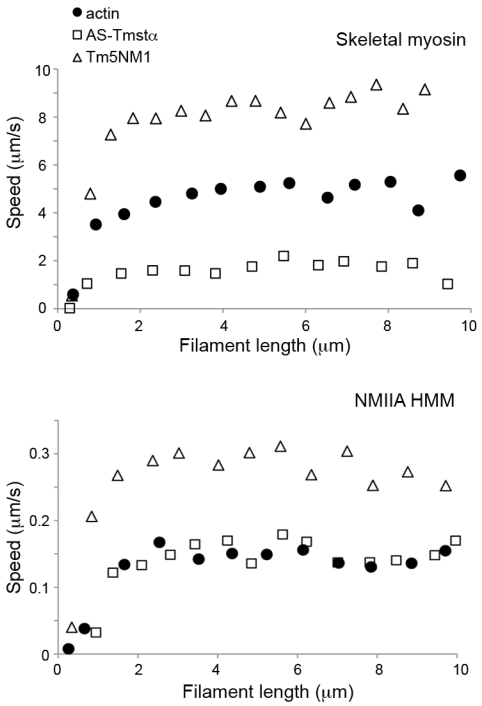

FIGURE S2. The speeds of individual actin, actin-AS-Tmstα and actin-Tm5NM1 filaments on skeletal myosin and NMIIA HMM as a function of filament length. Each plot is from a representative experiment. The speed is independent of fialment length except for very short filaments (<1 μm).

MOVIE LEGENDS

MOVIE S1. *In vitro* motility assays for actin (A), actin-AS-Tmstα (B) and actin-Tm5NM1 (C) filaments moving on skeletal myosin (40 μg/ml). The video shows the first 500 frames out of a total of 1000 frames at 2x speed (30 fps) of the original recording (15 fps).

MOVIE S2. *In vitro* motility assays for actin (A), actin-AS-Tmstα (B) and actin-Tm5NM1 (C) filaments moving on NMIIA HMM (60 μg/ml). The video shows the first 500 frames out of a total of 1000 frames at 5x speed (30 fps) of the original recording (6 fps).