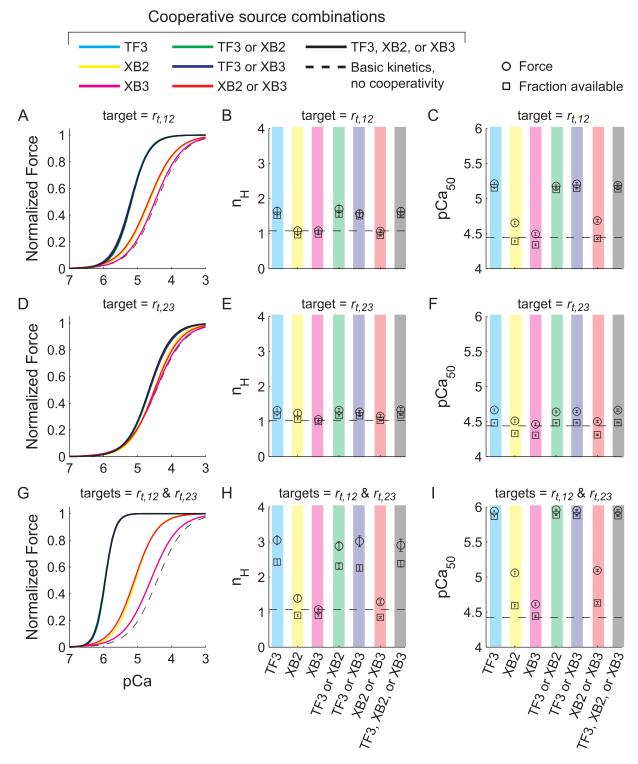**Figure S2: Multiple cooperative pathways combine to produce the physiological force-pCa relationship.** Force and fractional thin filament activation are illustrated for all combinations of kinetic cooperativity. (A) Lines show 3-parameter Hill fits to steady-state force-pCa responses for $r_{t,12}$ being targeted independently, along with symbols depicting n_H (B) and pCa_{50} (C) values from fits to both force-pCa and fraction available-pCa relationships. Comparable results are shown for $r_{t,23}$ being targeted independently (D-F), or $r_{t,12}$ and $r_{t,23}$ being targeted in combination (G-I). Dashed lines illustrate simulation results without cooperative kinetics. Error bars represent 95% confidence intervals for n_H and pCa_{50}. Simulations used standard parameter values: k_{xb}=3 pN nm^{-1}, k_{fil}=k_m=k_a=1X, and RU_{span}=9 actins.