## **Supplemental Figure Legends**

FIGURE S1. **SDS-page analysis of purified actin samples.** 10ug of each purified actin sample (as labeled) was run on a 10% SDS-page gel. Shown is a representative gel performed with at least three independent actin preparations

FIGURE S2. F-actin filaments from polymerizing Ca-G-nonmuscle actin isoforms and Mg-Gnonmuscle actin isoforms. *A*, Electron micrograph of  $\beta$ -nonmuscle actin filaments in the Ca form. *B*, Electron micrograph of  $\gamma$ -nonmuscle actin filaments in the Ca form. *C*, Electron micrograph of  $\beta$ nonmuscle actin filaments in the Mg form. *D*, Electron micrograph of  $\gamma$ -nonmuscle actin filaments in the Mg form. Actin was polymerized at 4.8µM and the product was examined by EM as described under "Experimental Procedures." Scale Bar = 100 nm. Shown are representative pictures of three independent actin preparations.

## Figure S1





