Supplementary Figure Legends

Figure S1, Collins *et al.*

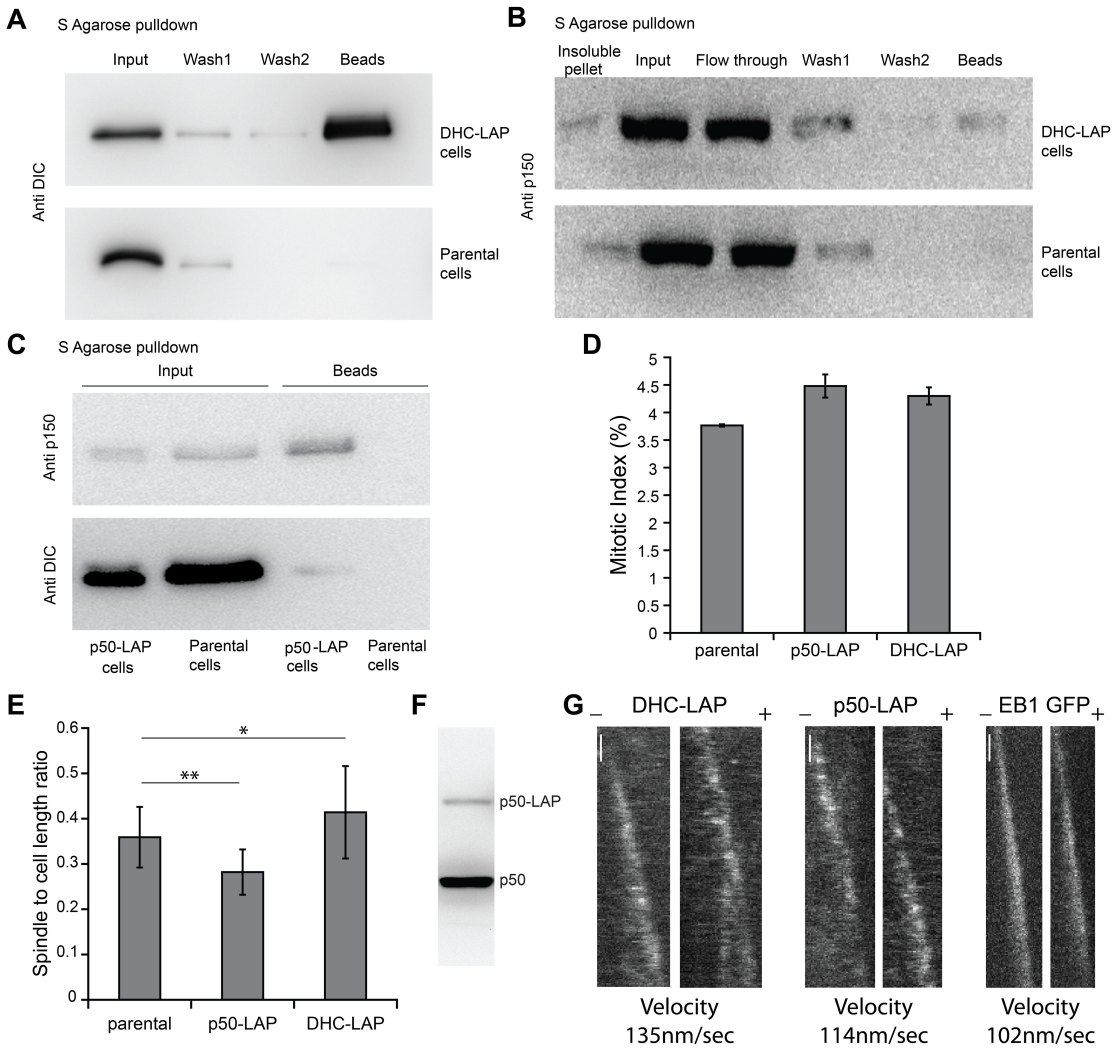

Figure S1. BAC cell line characterization. (A-C) Pull down of DHC-LAP and p50-LAP from mitotic cell extracts with S-agarose beads. Western blots using anti-dynein intermediate chain and anti-p150 antibodies demonstrate that native dynein and dynactin are present in the DHC-LAP or p50-LAP bead fraction, but not in the S-agarose beads prepared from parental cells lacking the LAP tag, indicating that DHC-LAP and p50-LAP can associate with, and are likely incorporated into complexes with dynein and

dynactin. (D) The mitotic index (n = ≥ 268 cells) and (E) spindle to cell length ratio for the p50- and DHC-LAP cell lines (n = ≥ 18 cells). Error bars show standard error. * $p \leq 0.05$ and ** ≤ 0.01. (F) A Western blot for p50 of the clonal isolate used in these experiments. (G) Kymographs from image series taken in TIRF of cells expressing DHC-LAP, p50-LAP, and EB1-GFP. Kymographs show fluorescent punctae in these cells moving in the plus end direction (away from spindle poles) at similar rates. Scale bar = 1 μm (horizontal) and 2 sec (vertical).

Figure S2, Collins *et al.*

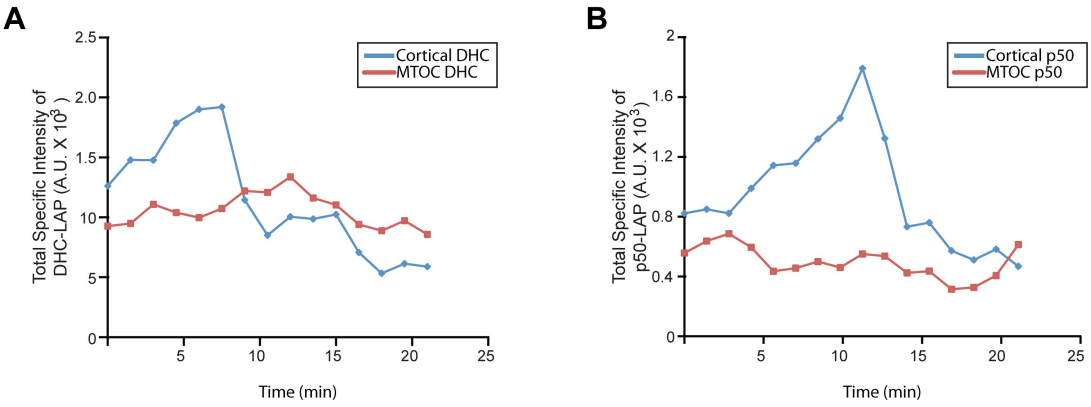

Figure S2. Fluorescence intensity of DHC-LAP and p50-LAP. Analysis of the intensity of DHC-LAP (left) and p50-LAP (right) at the cortex of a cell with displaced mitotic spindle, and at the MTOC of a neighboring interphase cell.

Figure S3, Collins *et al.*

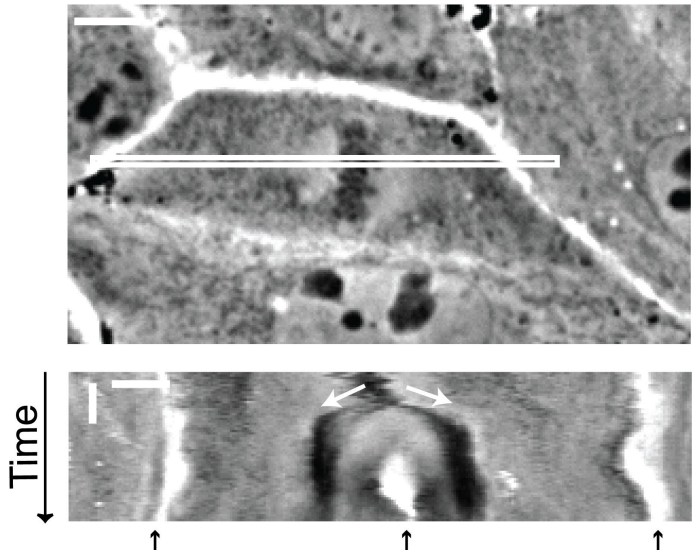

Figure S3. Symmetric anaphase chromosome movements during anaphase in Class I LLC-Pk1 cells. Spindle position at the start of a time-lapse series of phase contrast images of a Class I cell and corresponding kymograph of chromosome movement over time. Boxed region shows location used for kymograph. Scale bar = 10 μm (horizontal) and 10 min (vertical). *Black arrow,* cell edges and cleavage furrow; *white arrows* denote chromosome movement.