Supplemental Fig. 1. Immunofluorescence of untransfected NIH3T3 cells showing endogenous expression of p60/katanin in mitotic cells. Nuclei are visualized by DAPI staining (blue), while p60/katanin is shown in green. Microtubules are visualized by α-tubulin staining in red. Size bar indicates 10 microns (white).

Supplemental Fig. 2. HeLa cells treated with siRNA targeted against Cul3 are shown by immunofluorescence. Cells were co-transfected with siRNA and GFP to identify transfected cells. DAPI staining is shown in blue, while Aurora B kinase expression is red. Size bar indicates 10 microns (white).

Supplemental Fig. 3. Co-expression of Ctb9/KLHDC5 and p60/katanin reverses over expression of Ctb9/KLHDC5 phenotype. HeLa cells are stained with DAPI (blue), p60/katanin co-expressed with Ctb9/KLHDC5 (green), and α-tubulin (red). Cells co-expressing both proteins do not show an excess amount of microtubules or and increase in the number of bi-nucleated cells. Size bar indicates 10 microns (white).

Supplemental Fig. 4. siRNA against p60/katanin phenocopies Ctb9/KLHDC5 over expression. Hela cells stained with DAPI (blue), myc-tag as a control for transfection (green), and α-tubulin (red). Cells receiving siRNA against p60/katanin are multinucleated. Size bar indicates 10 microns (white).

Supplemental Fig. 5. Inhibition of Aurora B kinase increases p60/katanin levels. Untransfected HeLa cells were treated with either DMSO or ZM447493 Aurora B kinase inhibitor and immunostained for DAPI (blue), p60/katanin (green), and α-tubulin (red). Quantification of p60/katanin fluorescence intensity in cells receiving DMSO versus ZM447493 is shown to the right, where n equals the number of cells quantified. Size bar indicates 10 microns (white).