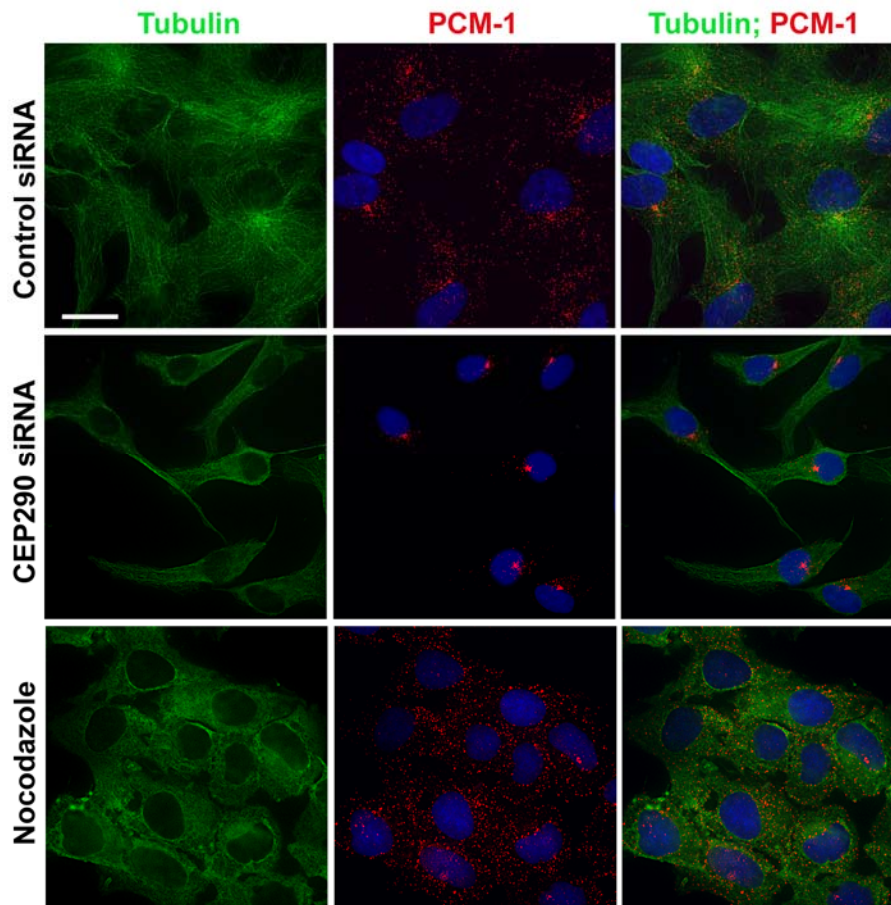


Supplementary Material

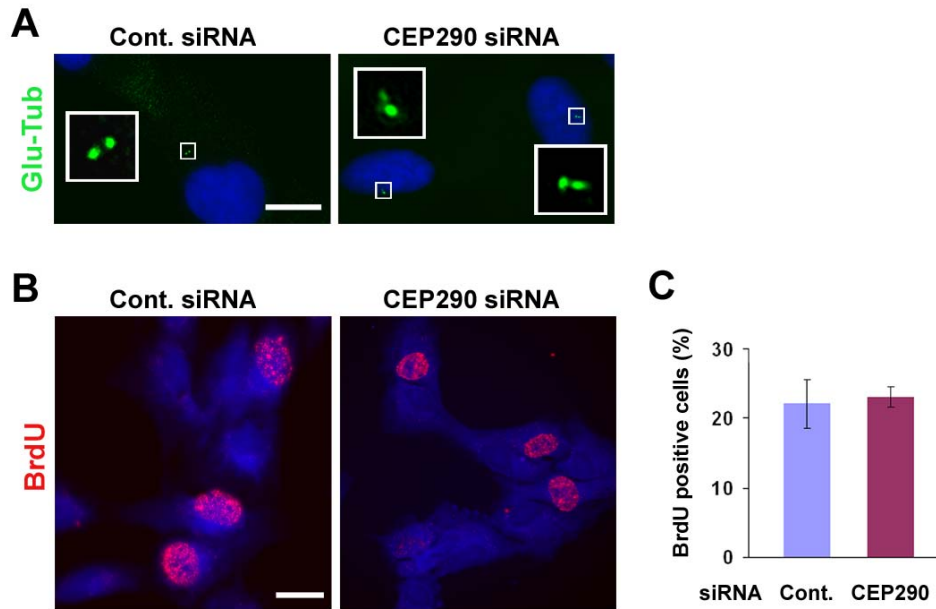
Supplemental Figure 1.

hTERT-RPE cells were either transfected with indicated siRNAs for 3 days or treated with 20 μ M nocodazole for 2 h (bottom panels), and stained with anti- α -Tub and anti-PCM antibodies. Microtubule network collapse and concomitant cell size reduction is observed in CEP290 depleted cells which also show concentric accumulation of PCM-1 granules. In contrast, disruption of microtubule network by nocodazole treatment is accompanied by wide dispersion of PCM-1 granules. These observations suggest that concentric aggregation of PCM-1 granules in CEP290 depleted cells is not a secondary consequence of the microtubule collapse. Scale bars: 20 μ m.



Supplemental Figure 2.

(A) hTERT-RPE cells were stained with anti-Glu-Tub antibody 3 days after transfection with the indicated siRNAs. CEP290 depletion does not cause apparent abnormalities in centriole structure which is marked by anti-Glu-Tub antibody. (B) hTERT-RPE cells were incubated with BrdU for 1 h and processed for anti-BrdU immunofluorescence staining 3 days after transfection. (C) Histogram quantifying the data shown in (B). More than 800 cells from two independent experiments were counted for each bar. Error bars represent SD. Normal BrdU+ cell ratio indicates that G1-S transition is not affected by CEP290 depletion. Scale bars: (A) 10 μm ; (B) 20 μm .



Video 1. Live imaging of the movement of GFP-tagged CEP290 along mCherry labeled microtubules. Time is shown in seconds.