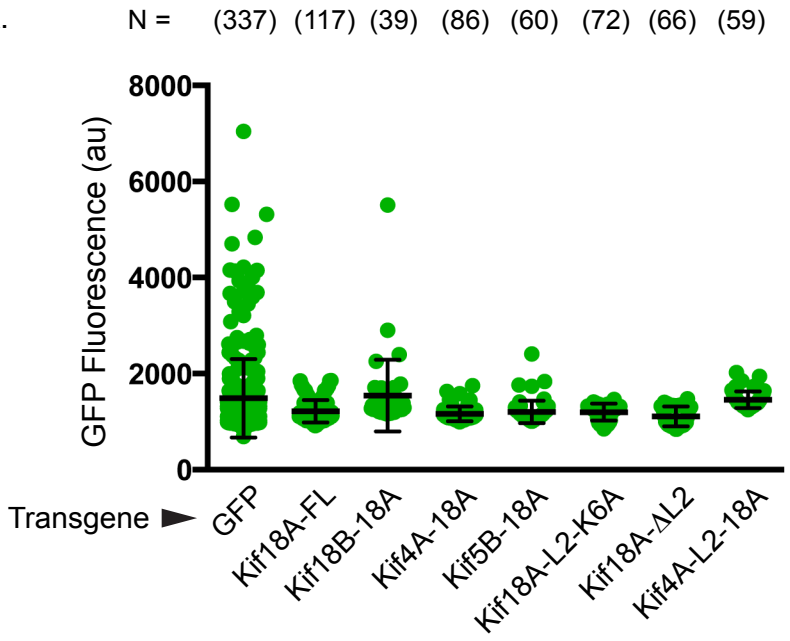
Supplemental Materials

Molecular Biology of the Cell

Kim et al.

Figure S1. Quantification of GFP-kinesin levels. (A) Plot of integrated GFP fluorescence intensities in the region of the spindle from individual cells depleted of Kif18A and transfected with GFP or the indicated GFP-tagged kinesin. The population of cells measured was used to evaluate the localization (Figures 1C and 4C), chromosome alignment activity (Figure 6C) and effects on spindle length (Figure 6D) for each kinesin. Bars indicate the mean ± s.d. The number of cells evaluated for each construct (N) is reported above the graph.

Figure S2. Kif18A-770 concentrates at K-fiber ends in taxol treated cells. (A) Fluorescent micrographs of GFP-tagged Kif18A-770 (green) in Kif18A-depleted HeLa cells immunostained with ACA (centromeres, red) and tubulin (blue) in the absence (top panels) or presence (bottom panels) of taxol. (B) Linescans of GFP-tagged Kif18A-770 (green trace) relative to tubulin (blue trace) and ACA (red trace) along K-fibers in untreated (top plot) or taxol-treated (bottom plot) cells. (C) Anti-GFP Western blot of a lysate from cells depleted of Kif18A and transfected with GFP-Kif18A-770 (lane 1) compared to 50 ng of purified Kif18A-GFP (lane 2).



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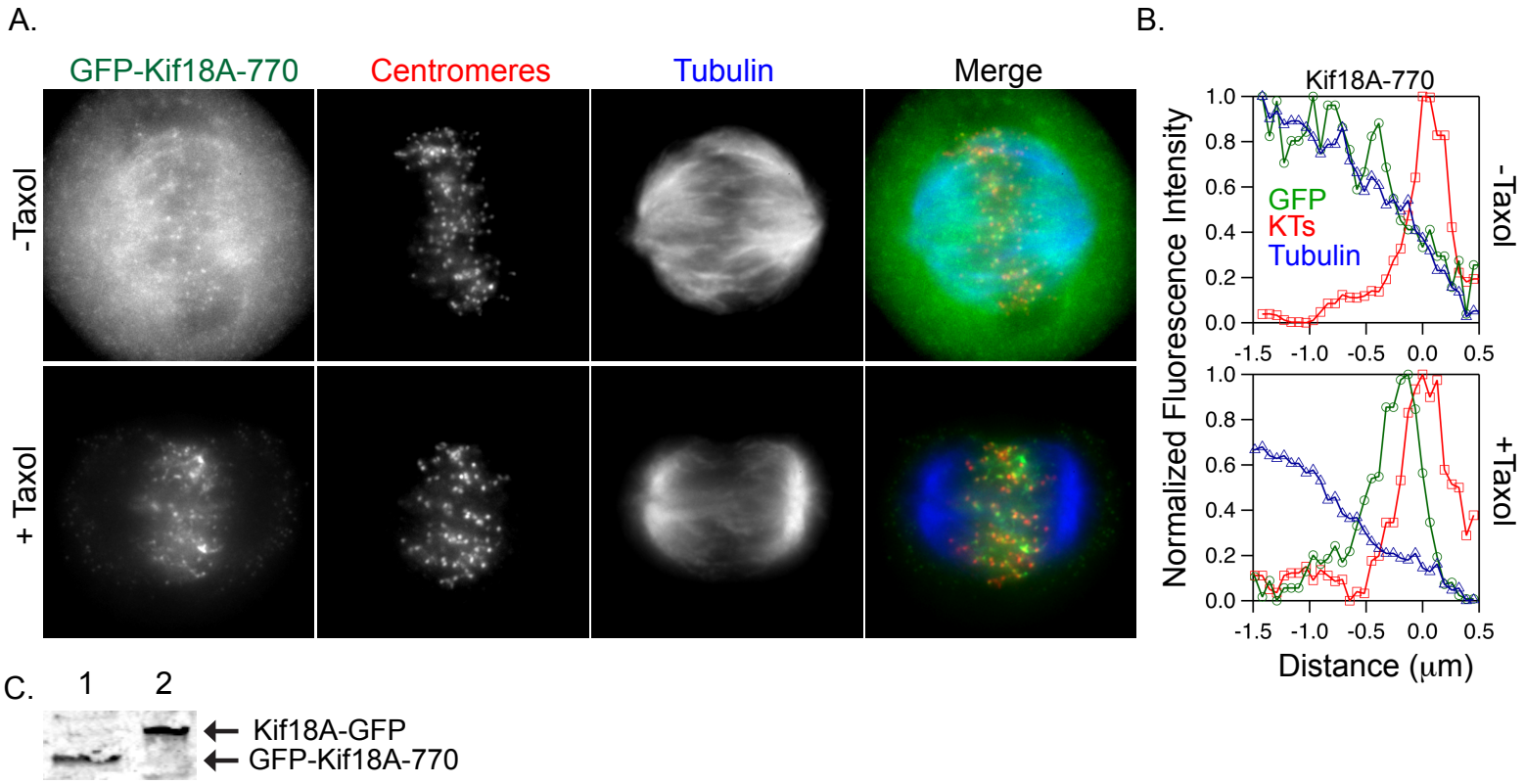

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