



Fig. S5. Small molecule inhibition and immunodepletion of kinesin candidates that had no effect on AAIZ formation and CPC localization. Asters were assembled between PEG-passivated coverslips, and AAIZs were imaged after 30 min. Representative spinning disc confocal images of MTs and AurkB at AAIZs after treatment with DMSO control, 100 μ M GSK-

923295 (a Kif10/CenpE inhibitor; experiments with mitotic spindles in egg extracts and *Xenopus* tissue culture cells confirmed expected activity of this compound, i.e. displacement of mitotic chromosomes from the metaphase plate (28)), 100 μ M STLC (S-trityl-L-cysteine, a Kif11/Eg5 inhibitor (29)), or depletion of the somatic Kif20A motor, as labeled above. Representative control depletion with random IgG is shown in Fig. 2A. Bar, 20 μ m.