

Kaseda et al | Single headed mode of kinesin-5

Supplementary Fig 1 | Microtubule gliding speeds for double-headed (red) and singleheaded (green) Eg5 at different surface densities. Circles: Eg5 motors at a given concentration were introduced into a chamber. Squares: Tail-his construct, as a histidinetagged protein, was used as a diluent for the active motor, in order to vary the motor density on the surface against a background of full labeling of the surface with his-tagged protein. Total motor domain concentrations were 10 μM for double headed Eg5 (red) and 8 μM for single-headed Eg5 (green). Movement was smooth for the entire range that is plotted. At very low motor concentrations (not shown), movement became sporadic.



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Supplementary Fig 2 | Microtubule gliding driven by mixtures of kinesin-1 homodimer and kinesin-1/Eg5 heterodimer. The mixture moves MTs at 259±50 nm/s and 392±55 nm/s in the absence (top) and in the presence (bottom) of 1mM monastrol, respectively.