



**Figure S13. Effect of MCAK knockdown and over-expression on spindle morphology and positioning.** **a** Immunoblot analysis of efficiency of MCAK knockdown and its impact on detyrosination levels of cells with VASH1/2 knockdown studied using anti-MCAK and anti-detyrosinated tubulin antibodies with GAPDH as loading control. **b** Polar distribution plots of spindle angle deviation following depletion of MCAK on cells treated with siVASH1/2 and controls and MCAK over-expression as presented in Fig. 5b. **c** Representative immunofluorescence images showing mEmerald-MCAK localization during mitosis and its effect on spindle morphology. U2OS cells transfected with mEmerald-MCAK plasmid were immunostained with an antibody against total  $\alpha$ -tubulin and DAPI counterstain for DNA. Total  $\alpha$ -tubulin in green, and DNA in blue in merged image. Scale bar: 10  $\mu$ m.