

**Supplementary Figure 5.** Quantitative family-wide analysis of Rab-effector specificity **a**, Concentration dependence of the equilibrium SPR signal ( $R_{eq}$ ) for the binding of 6xHis Rbsn<sub>137-784</sub> to GST fusions of Rab4 and Rab14 (left) or Rab5, Rab22, and Rab24 (right). **b**, Correlation of interaction specificity with sequence similarity. <SRab4> and <SRab5> represent average log odds substitution scores from the Blosum 62 matrix for comparisons with Rab4 and Rab5, respectively.