Supplementary figure 3: Model for polarized synthesis of β-actin. Upon encountering an attractive directional source of netrin-1, Vg1RBP and its β-actin mRNA cargo is transported to the side nearest to the stimulation and asymmetric phosphorylation of translation initiation factor occurs (1). Polarized β-actin synthesis gives rise to new nucleation sites (2), which assist actin polymerization, filopodial protrusion and thus attractive turning response (3). Numbers are for reference only and do not indicate a definitively known temporal sequence.