Inoue et al., http://www.jcb.org/cgi/content/full/jcb.200809151/DC1

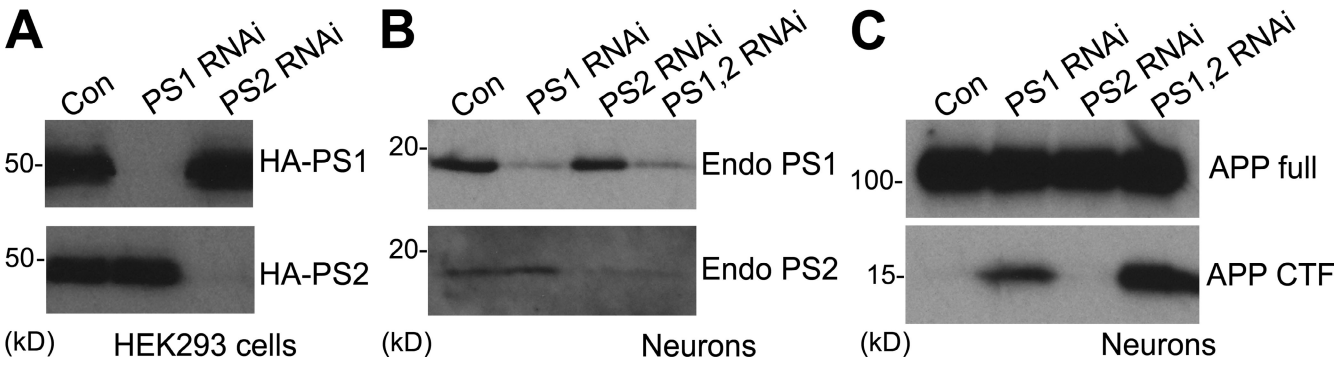

Figure S1. **Validation of PS RNAi constructs.** (A) Knockdown of HA-PS1 and HA-PS2 by RNAi in HEK293 cells. HEK293 cells were cotransfected with HA-PS1 or HA-PS2 and the RNAi constructs. The PS expression levels were analyzed by Western blotting using the anti-HA antibody. (B) Knockdown of endogenous PS1 and PS2 by RNAi constructs in rat hippocampal primary cultured neurons. Neurons were electroporated with the RNAi constructs. The PS expression levels were analyzed by Western blotting using the indicated antibodies. (C) Reduction of amyloid precursor protein (APP) processing in PS double-knockdown neurons. The processing of APP was analyzed by Western blotting using the anti-APP antibody. Accumulated CTF derived from APP is detected in the PS double-knockdown neurons.

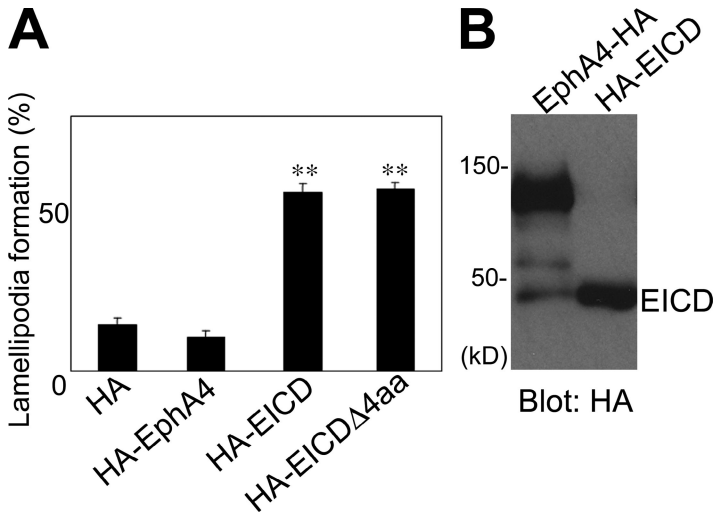

Figure S2. **Analysis of the Rac-activating activities of various EphA4 mutants.** (A) Effects of HA-EphA4 and EphA4 ICDΔ4aa (ΔPDZ-binding motif) on the formation of lamellipodia. Similar to EphA4-HA, HA-EphA4 does not enhance the formation of lamellipodia. In addition, EphA4 ICDΔ4aa enhances the formation of lamellipodia at the same level as EphA4 ICD. Data are expressed as means ± SEM; **, $P < 0.01$. (B) Expression of EphA4 and EphA4 ICD. NIH3T3 cells were transfected with EphA4-HA or HA-EphA4 ICD, and analyzed by Western blotting using the anti-HA antibody. The amount of ICD derived from EphA4-HA is much lower than that of the ICD expressed alone. EICD, EphA4 ICD