Supplemental Data

Materials and Methods

*Immunoblotting*

Brain tissue samples were homogenized in RIPA Lysis buffer (Millipore, Tris/HCl pH 7.4, 1 mM EDTA, 150 mM NaCl, 1% NP40, 0.25% sodium deoxycholate, 1X phosphatase inhibitors I and II (Sigma), 1X PMSF (Sigma) and 1X complete protease inhibitors (Sigma). Protein concentrations were measured by a standard BCA assay (Pierce, Rockford, IL). Lysates were denatured in Laemmli’s buffer, and equal amounts of protein were loaded into 10% Tris-HCl gels (Bio-Rad). After transfer, blots were blocked with 5% blocking solution (5% bovine serum albumin (BSA) in TBS with 0.1% Tween 20 (TBST)) for 1 hour at room temperature. Following block, antibodies against phospho-CREB (Cell Signaling, Ser133-87G3) were applied at 1:1,000 dilution in 2.5% blocking solution (2.5% BSA in TBST) overnight at 4°C. Membranes were washed three times for 10 min in TBST and incubated with ECL secondary antibody (GE) for 1 hour. Membranes were then washed three times for 10 min and protein expression was visualized by ECL treatment and exposure to film. Immunoblots were then stripped with stripping buffer (Thermo Scientific) for 20 min, washed three times in TBST and blocked 5% blocking solution for 1 hour. Immunoblots were then probed with antibodies to total Dab1 (Dab1 E1 mAb, provided by Andre Goffinet) or CREB (Cell Signaling, 48H2) and treated as above. Bands were quantified using Image J by analyzing pixel density. Student’s T-test was used to determine statistical significance.

Supplemental Figure Legends

**Figure 1.** Reelin injection enhanced CREB phosphorylation in hippocampus homogenates 15 min post-injection. Activation of CREB was determined with p-Ser133 specific antibody. To perform quantitative analysis, phosphorylated protein measurements were standardized to total protein. Reelin-injected mouse
tissues were standardized to their saline-injected counterparts and the average saline measurements were set to 100%. Reelin injection increased CREB phosphorylation by 109% compared to saline (n = 3 mice/group; *, p<0.05).