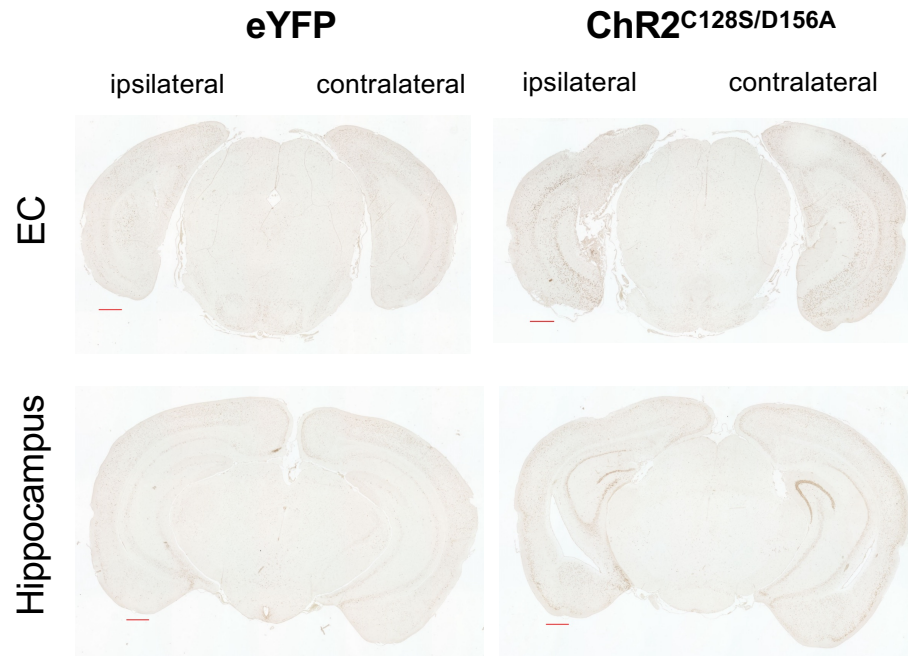
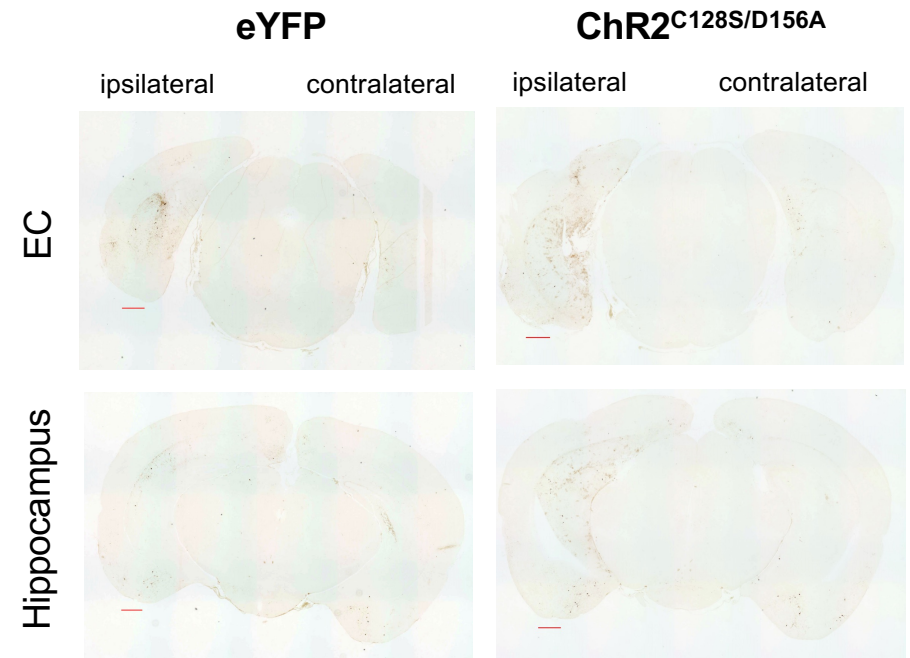
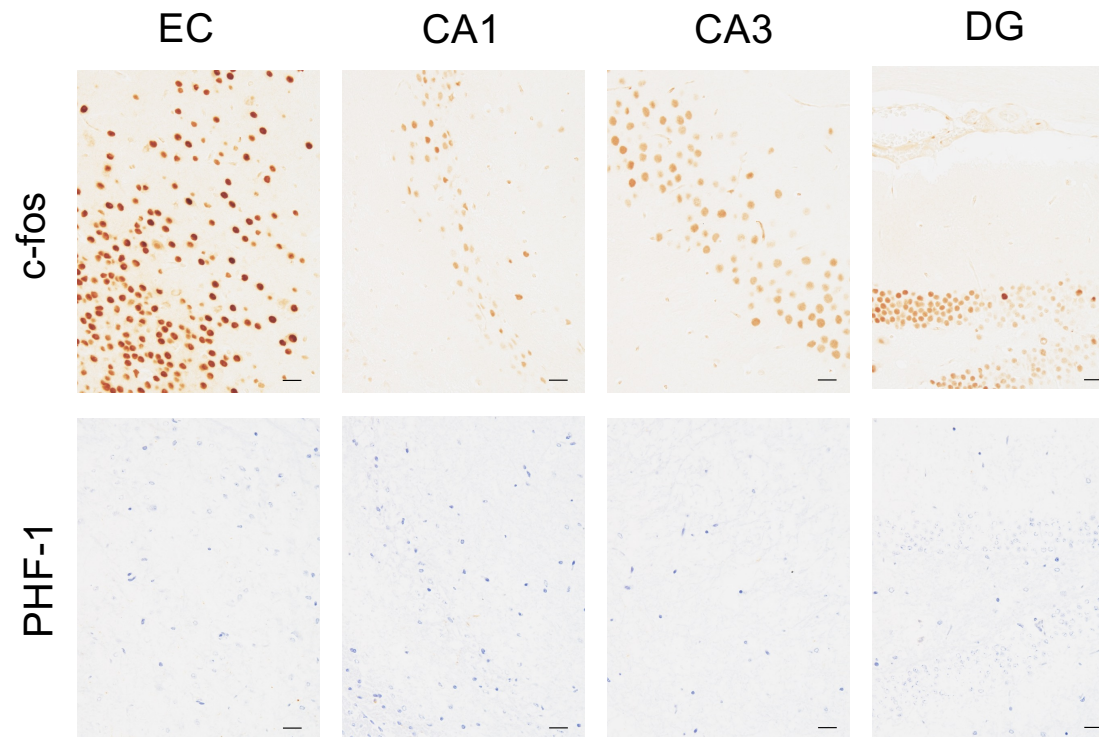
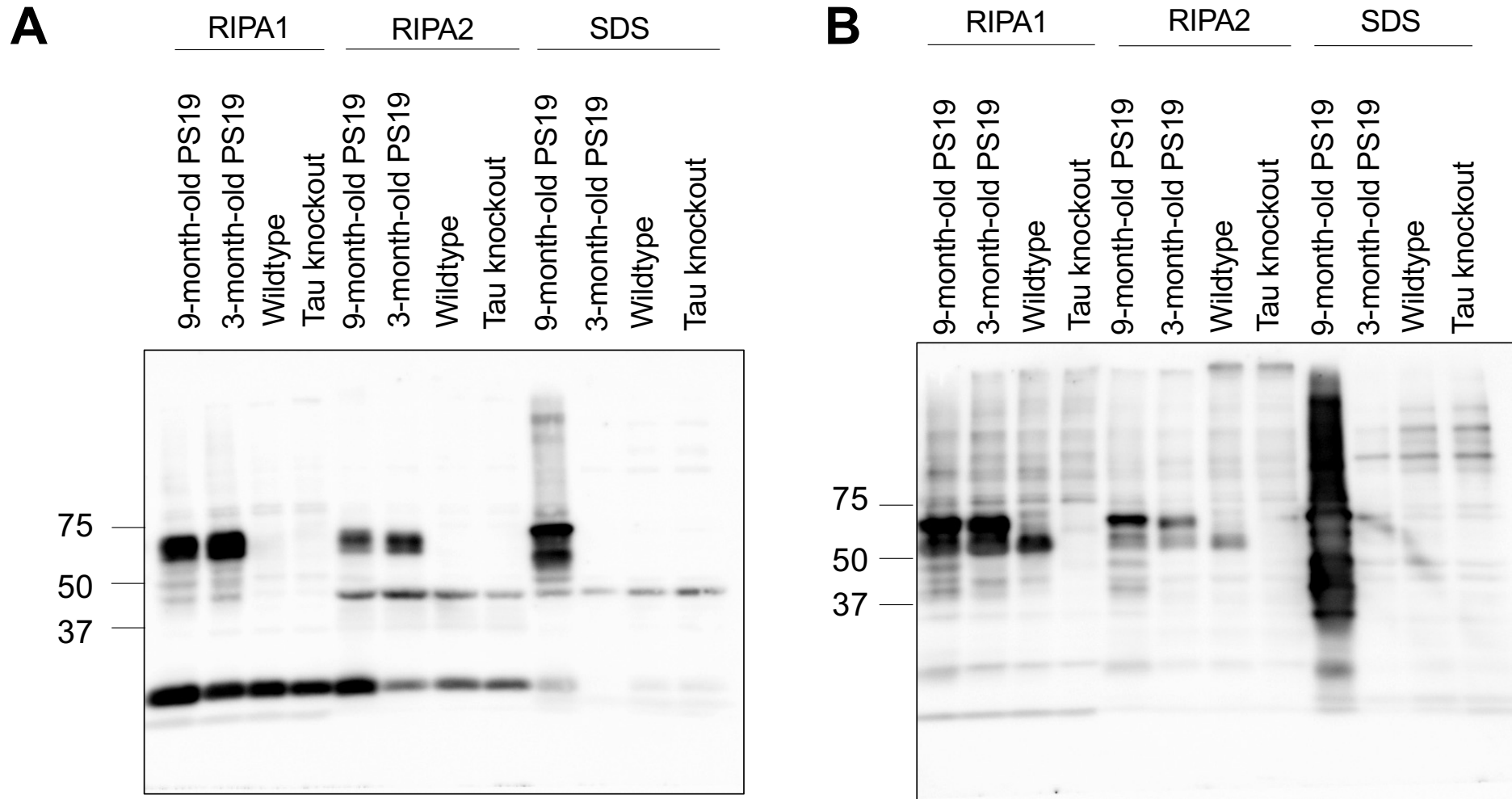


**A****B**

**Figure S1.** Representative low-magnification images of c-fos (A) and PHF-1 (B) staining in EC and hippocampus following injection of AAV and tau fibrils in PS19 mice. Scale bars, 20  $\mu$ m.



**Figure S2.** Representative images of c-fos and PHF-1 staining (counterstained with hematoxylin) in EC, CA1, CA3 and DG of hippocampus subjected to 4-week chronic stimulation without injection of tau fibrils in PS19 mice. Scale bars, 20  $\mu$ m.



**Figure S3.** Immunoblots probing for human tau (HJ8.5)(A) and p-tau (PHF-1)(B) in RIPA1, RIPA2 and SDS fractions of PS19, wildtype and tau knockout mouse without injection of tau fibrils.