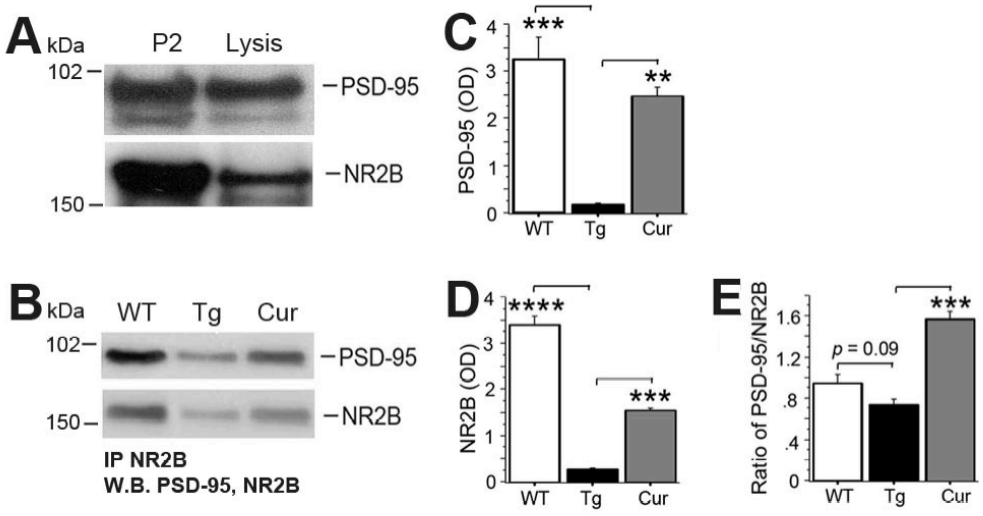

Figure S1

Figure S1A. Western blot depicts postsynaptic proteins PSD-95 and NR2B in synaptosome preparations and lysis fractions from hippocampus of WT mice. NR2B was enriched in synaptosome preparations, but the lysis fraction also showed high levels of both. B-E. CO-IP of PSD-95 with NR2B showed curcumin significantly elevated the ratio of PSD-95/NR2B ($p < 0.001$).

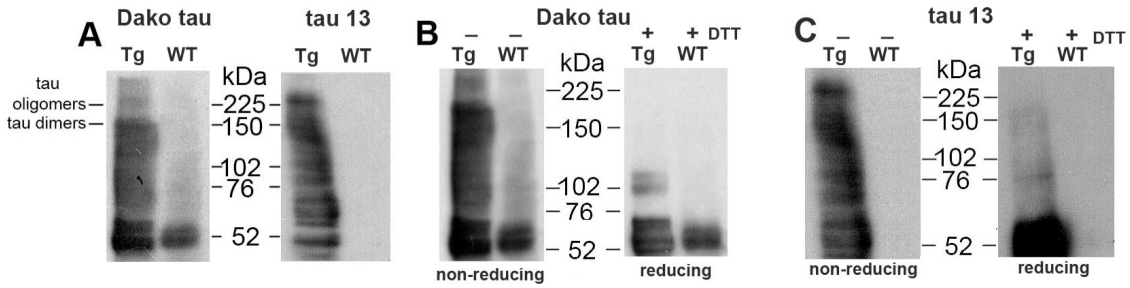

Figure S2

Figure S2 A. Tau oligomers can be detected by human tau specific antibody tau 13. Tau 13 only detected human tau in htau mice but not mouse tau. Dako tau antibody can detect both human and mouse tau. B, C. 140 kDa tau dimers and high molecular weight tau oligomers containing cysteine-dependent and cysteine-independent two distinct forms, but most signals were cysteine-dependent. Analysis of htau TBS fraction by non-reducing and reducing SDS– PAGE with or without 100 μM DTT showed that tau dimers and high molecular weight tau oligomers were broken down to monomers (cysteine-dependent) on reducing SDS– PAGE with only a very weak 140 kDa band after DTT (cysteine independent).

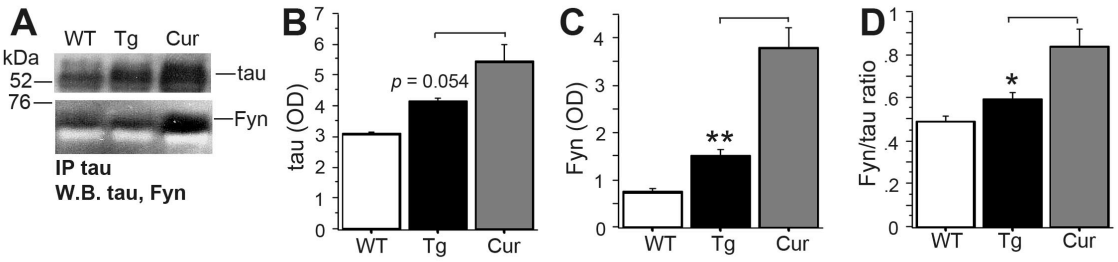

Figure S 3

Figure S3. Co-immunoprecipitation (Co-IP). A-D. Co-IP of fyn with tau indicated that curcumin-treated mice increased the ratio of fyn/tau interaction compared to untreated htau mice $p < 0.05$).