



Product Data Sheet

Product Name:	Anti-Tau (paired 212,214,217)
Catalog Number:	54969
Lot Number:	See label on vial
Product Description:	This polyclonal antibody is supplied as an epitope affinity purified rabbit IgG, 50µg in 250 µl of 1x PBS (pH 7.4) containing 0.05% sodium azide.
Immunogen:	Rabbit Anti-Tau (paired212,214,217) polyclonal antibody was raised against a synthetic peptide (SRTPSLPTP) corresponding to human Tau surrounding Serine 214.
Species Reactivity:	Species reactivity includes human, mouse, rat and bovine, while others remain unknown. The antibody was evaluated for specificity with dot blot and Western blot. By dot blot, Anti-Tau (paired212,214,217) only recognized the immunizing peptide and not other Tau sequences. By Western Blot, an immunoreactive band around 52 kDa was observed in the mouse brain lysate.
Application Notes:	The following concentration ranges are recommended starting points for this product. Optimal working concentrations should be determined by the investigator for specific applications.
Dot Blot:	1:500-2,000
Western Blot:	1:500-2,000
IHC:	1:500-2,500

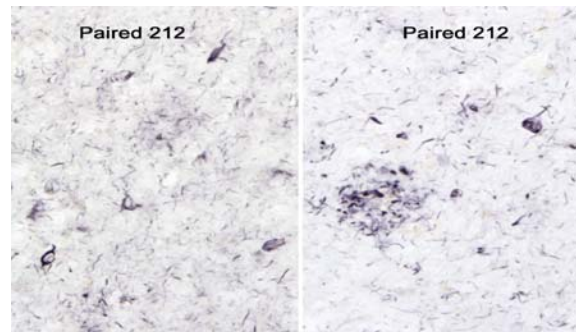


Figure 1. IHC of the upper layers (II/III) with neurofibrillary tangles (left), and the deeper layers with dystrophic neurites in plaques of entorhinal cortex of Alzheimer disease brains (right), stained with Anti-Tau (paired 212, 214, 217) antibody (Cat# 54969), biotinylated secondary antibody avidin-biotin-HRP, visualization by heavy metal intensification of DAB, 40X objective (Courtesy of Dr. Patrick L. McGeer, Kinsmen Laboratory of Neurological Research, University of British Columbia, Vancouver, Canada)

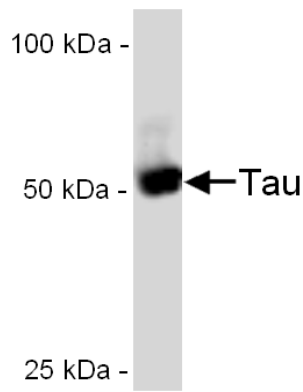


Figure 2. Western blot analysis of mouse brain lysate probed with Anti-Tau (paired212,214,217) antibody (Cat# 54969) at a 1:200 dilution

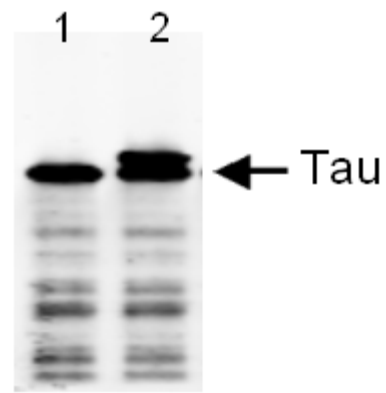


Figure 3. Western blot analysis of non-phosphorylated (1) and phosphorylated (2) recombinant Tau protein probed with Anti-Tau (paired212,214,217) antibody (Cat# 54969). Immunoreactive bands were recognized in both non-phospho- and phospho- Tau (Courtesy of Dr. Nichol's Lab, Parkinson's Institute and Clinical Center, Sunnyvale, California)

Background:

Tau is a collection of microtubule-associated proteins that is involved in microtubule assembly and stabilization (1). In the adult human brain, six isoforms ranging between 352 and 441 amino acids in length are produced as a result of alternative RNA splicing (2, 3). The expression of Tau isoforms is developmentally regulated, as only the smallest Tau polypeptide is expressed in the fetal brain. Hyper-phosphorylated Tau is the major component of the paired helical filament of Alzheimer's disease. Phosphorylation-dependent anti-Tau antibodies are used to distinguish, between normal brains and Alzheimer's disease brains, specific amino acids that are phosphorylated in Tau. Tau proteins, particularly in developing brains and in Alzheimer brains, were found to phosphorylate *in vivo* at several different sites (4).

References:

1. Cleveland, D. et al. *J Mol Biol* **116**, 207 (1977).
2. Goedert, M. et al. *EMBO J.* **8**, 393 (1989).
3. Goedert, M. et al. *Neuron* **3**, 519 (1989).
4. Billingsley, M. et al. *Biochem J* **323**, 577 (1997).

Storage:

Store at 2-8°C for up to one year. Avoid repeated freezing and thawing.

Related Products:

[Check](#) our website for more Tau antibodies.

This product is for *in vitro* research use only.