



Product Data Sheet

Product Name:	Anti-Tau (pSer199/202)
Catalog Number:	54963
Lot Number:	See label on vial
Product Description:	This rabbit polyclonal antibody is supplied as an epitope-affinity purified rabbit IgG 50 µg in 250 µl (0.2 mg/ml) of 1x PBS (pH 7.4) containing 0.1% BSA and 0.05% sodium azide.
Immunogen:	A synthetic phosphopeptide (GYSpSPGpSPGT) corresponding to human Tau at the phosphorylated site of Serine 199 & 202.
Species Reactivity:	Species reactivity includes human, mouse and rat. This antibody was designed for human Tau phosphorylated at the position of Ser199 and 202. The antibody was evaluated for specificity with a dot blot assay using synthetic Tau peptides. Anti-Tau (pSer199/202) only recognized the phosphorylated Ser199 and 202 of human Tau and not other phosphorylated sites nor non-phosphorylated Tau. By Western blot analysis, Anti-Tau (pSer199/202) only recognized the phosphorylated Tau protein and not non-phosphorylated Tau.
Application Notes:	The following concentration ranges are recommended starting points for this product. The investigator should determine the optimal working concentrations for specific applications.

ELISA for immunizing peptide:	1:5,000-20,000
Dot Blot:	1:500-2,000
Western Blot:	1:500-1,000
Immunohistochemistry:	1:1,000

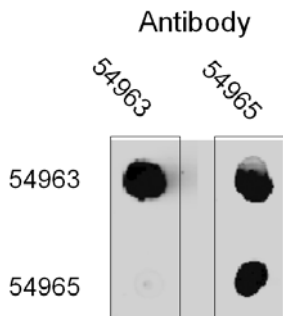


Figure 1. Dot blot analysis with Tau peptides showed the Anti-Tau (pSer199/202) antibody (Cat# 54963) to be phospho-peptide specific, while the Anti-Tau (paired199/202) antibody (Cat# 54965) could detect both phosphorylated and non-phosphorylated peptides

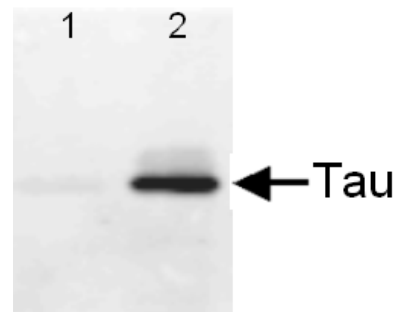


Figure 2. Western blot analysis of non-phosphorylated (1) and phosphorylated (2) recombinant Tau proteins probed with Anti-Tau (p199/202) antibody (Cat# 54963). Only the phosphorylated Tau protein is recognized by Anti-Tau (p199/202) (Courtesy of Dr. Nichol's Lab, Parkinson's Institute and Clinical Center, 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.

Compatible Secondary Antibodies:

Catalog #	Goat anti-Rabbit IgG (H+L)
28176	Unconjugated
28176-AMCA	AMCA Labeled
28176-FAM	FAM Labeled
28176-FITC	FITC Labeled
28176-TAMRA	TAMRA Labeled
28176-H488	HiLyte Fluor™ 488 Labeled
28176-H555	HiLyte Fluor™ 555 Labeled
28176-H594	HiLyte Fluor™ 594 Labeled
28176-H647	HiLyte Fluor™ 647 Labeled
28176-H680	HiLyte Fluor™ 680 Labeled
28176-H750	HiLyte Fluor™ 750 Labeled
61056-H488	Highly Cross-adsorbed, HiLyte Fluor™ 488 Labeled
61056-H555	Highly Cross-adsorbed, HiLyte Fluor™ 555 Labeled
61056-H594	Highly Cross-adsorbed, HiLyte Fluor™ 594 Labeled
61056-H647	Highly Cross-adsorbed, HiLyte Fluor™ 647 Labeled
61056-H680	Highly Cross-adsorbed, HiLyte Fluor™ 680 Labeled
61056-H750	Highly Cross-adsorbed, HiLyte Fluor™ 750 Labeled
28177	Highly Cross-adsorbed, HRP Labeled
28178	Highly Cross-adsorbed, AP Labeled
28179	Highly Cross-adsorbed, Biotin Labeled

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