

Product Data Sheet

Product Name:	Anti-Tau (pSer396)								
Catalog Number:	54977								
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 0.05% sodium azide.								
Immunogen:	Rabbit Anti-Tau (pSer396) polyclonal antibody was raised against a synthetic peptide (VYKpSPVVS) corresponding to human Tau at the phosphorylated Serine 396.								
Species Reactivity:	Species reactivity includes human, mouse, rat, and bovine, while others remain unknown. The antibody was evaluated for specificity with dot blot where it recognized phosphorylated Serine 396 of human Tau and not the non-phosphorylated Tau. By Western blot analysis, Anti-Tau (pSer396) 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.								
	<table border="0"> <tr> <td>ELISA for immunizing peptide:</td> <td>1:5,000-20,000</td> </tr> <tr> <td>Dot Blot:</td> <td>1:500-2,000</td> </tr> <tr> <td>Western Blot:</td> <td>1:500-2,000</td> </tr> <tr> <td>IHC:</td> <td>1:500-2,000</td> </tr> </table>	ELISA for immunizing peptide:	1:5,000-20,000	Dot Blot:	1:500-2,000	Western Blot:	1:500-2,000	IHC:	1:500-2,000
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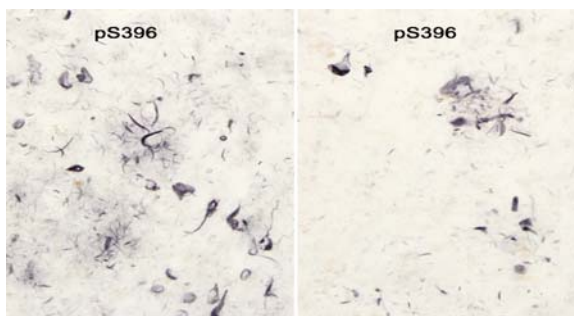


Figure 1. IHC of the upper layers (II/III) with neurofibrillary tangles (left), and the deeper layers with dystrophic neurites in plaques of entorhinal cortex of Alzheimer disease brains (right), stained with Anti-Tau (pSer396) antibody (Cat# 54977, biotinylated secondary antibody avidin-biotin-HRP, 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)

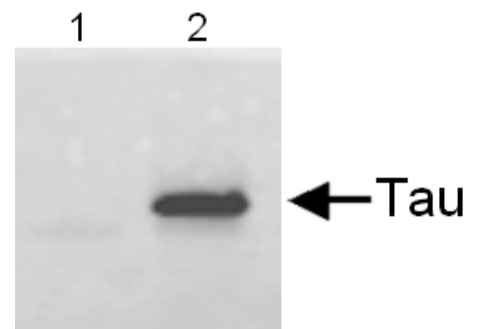


Figure 2. Western blot analysis of non-phosphorylated (1) and phosphorylated (2) recombinant Tau proteins probed with Anti-Tau (pSer396) antibody (Cat# 54977). Only the phosphorylated Tau protein is recognized by Anti-Tau (pSer396) (Courtesy of Dr. Nichol's Lab, Parkinson's Institute and Clinical Center, 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.