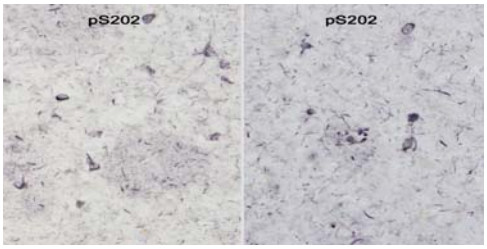
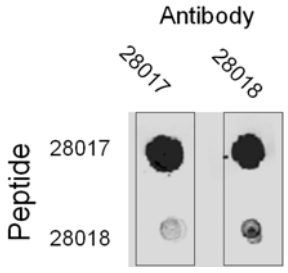
Product Data Sheet

Product Name:	Anti-Tau (pSer202)
Catalog Number:	28017
Lot Number:	See label on vial
Product Description:	This polyclonal antibody is supplied as an epitope affinity purified rabbit IgG, 50 µg in 250 µl of 1x PBS (pH 7.4) containing 0.05% sodium azide.
Immunogen:	A synthetic peptide corresponding to human Tau at the phosphorylated Serine 202 (SSPGpSPGTP).
Species Reactivity:	Species reactivity includes human, rat and mouse, while others remain untested. The antibody was evaluated for specificity with a dot blot assay using synthetic Tau peptides. It recognized the phosphorylated Serine 202 of human Tau, not other phosphorylated sites or non-phosphorylated Tau. 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.

Western Blot:	0.5 to 2.0 µg/ml
Dot Blot:	0.5 to 2.0 µg/ml



IHC of the left layers (II/III) with NFT (A), the right is of deeper layers with dystrophic neurities in plaques (B), stained with anti-Tau, pSer 202 (cat# 28017, 28017-025), 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).



Dot blot analysis with the peptides showed the anti-Tau (pSer202) be phospho-peptide specific, while the anti-Tau (paired202) could detect both phospho- and non-phospho- peptide)

Background:

Tau is a collection of microtubule-associated proteins that is involved in microtubule assembly and stabilization (1). In adult human brain, 6 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. Hyperphosphorylated Tau is the major component of the paired helical filament of Alzheimer's disease. Anti- phosphor-Tau antibodies are used to identify specific amino acids that are phosphorylated in Tau from normal brains and Alzheimer's disease brains. The Tau proteins, especially in developing brains and in Alzheimer brains, can found to be phosphorylated in vivo at many different sites (4).

Storage:

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

References:

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

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