



## Anti-Tau (pSer<sup>214</sup>)

**CATALOG NO.: 54967-025**

### 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 be found to be phosphorylated in vivo at many different sites (4).

### SOURCE & REACTIVITY:

Rabbit anti-Tau (pSer214) polyclonal antibody was raised against a synthetic peptides corresponding to human Tau at the phosphorylated Serine 214 (SRTPpSLPTP). The antibody was evaluated for specificity with dot blot. It recognized the phosphorylated Serine 214 of human Tau, not non-phosphorylated Tau by dot blot. Species reactivity includes human, mouse, rat and bovine, while others remain unknown.

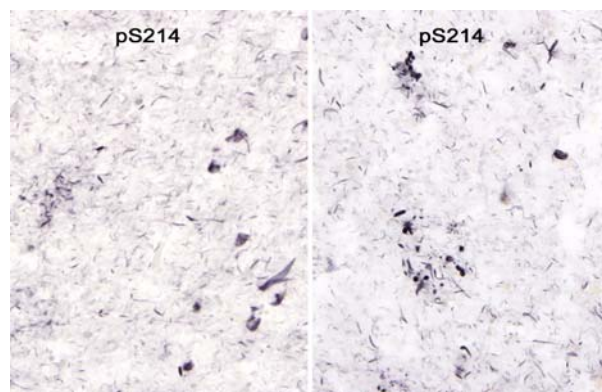
### APPLICATION:

The following concentration ranges are recommended starting points for this product.

**IHC:** 1:500-1:2500

**Dot Blot** 0.5-2.0 µg/ml

**WB:** 0.5-2.0 µg/ml



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, pSer 214 (cat# 54967, 54967-025), 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).

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

### STORAGE:

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

### REFERENCES:

1. Cleveland DW, et al (1977) J. Mol. Biol. 116, 207-225
2. Goedert M, et al (1989) Neuron 3, 519-526.
3. Goedert M, et al (1989) EMBO J. 8, 393-399.
4. Billingsley M et al (1997) Biochem J 323, 577-591.