**Tau [Ser422] Polyclonal Antibody, Phospho-Specific**

**Catalog Number:** PRB-524P  
**Available Size:** 0.1 mL

**Description:** Phospho-specific polyclonal antibody to Tau phospho-serine 422

**Intended Use:** **Research Use Only (RUO)**

This product is sold for laboratory research use only, not for human or in-vivo use.

**Form:** Affinity Purified Antibody (Stored in PBS, pH 7.4, 50% glycerol, 1 mg/mL BSA)

**Host:** Rabbit

**Species Reactivity:** Human

**[Ab]:** 0.5 mg/mL

**Specificity:** Phosphorylation site-specific antibody selective for the phosphorylated form of human tau containing a phosphate on serine 422. Tau is a neuronal microtubule-associated protein found predominantly on axons. The function of tau is to promote tubulin polymerization and stabilize microtubules, but it also serves to link certain signaling pathways to the cytoskeleton. Tau, in its hyperphosphorylated form, is the major component of paired helical filaments (PHF), the building block of neurofibrillary lesions seen in Alzheimer’s disease (AD). Hyperphosphorylation impairs the microtubule binding function of tau, resulting in the destabilization of microtubules in AD brains, ultimately leading to degeneration of the affected neurons. Hyperphosphorylated tau is also found in a range of other central nervous system disorders. Numerous serine/threonine kinases, including GSK-3β, PKA, CDK5, MARK, MAPKs, and casein kinase II can phosphorylate tau. Serine 422 can be phosphorylated by members of the MAP kinase (MAPK)family.

The antiserum was produced against a chemically synthesized phosphopeptide derived from a region of human tau that contains serine 422. The region surrounding serine 422 is also conserved in mouse and rat.

The antibody has been negatively preadsorbed

**Image Description:** Cell extracts prepared from African green monkey kidney (CV-1) cells, stably expressing human four repeat tau and a protein phosphatase inhibitor, were incubated with 0.5 µg/mL anti-tau [pS422], following prior incubation in the presence of the peptide immunogen, a generic phospho-serine peptide, the non-phosphopeptide corresponding to the tau phosphopeptide, or the absence of the peptide immunogen. The data show that only the phosphopeptide corresponding to the peptide immunogen blocks the antibody signal, thereby demonstrating the specificity of the anti-tau [pS422] PSSA for the targeted phosphorylation site.
using a non-phosphopeptide corresponding to the site of phosphorylation to remove antibody that is reactive with non-phosphorylated tau, and a generic serine phosphorylated peptide to remove antibody that is reactive with phosphoserine, irrespective of the sequence. The final product is generated by affinity chromatography using a tau-derived peptide that is phosphorylated at serine 422.

Uses: These antibodies are effective in immunoblotting.

Suggested Working Dilution: The optimal working dilution should be determined for each specific assay condition.
  • Western blot: 1:100-1,000

Storage: Store at -20ºC or below. Upon initial thawing, apportion into working aliquots and store at -20ºC or below. Avoid repeated freeze-thaw cycles to prevent denaturing the antibody. Do not store in frost-free freezers.


Warranty/Conditions: Covance products may not be resold or modified for resale without prior written approval.

Related Products:

  • Tau [Ser199] Polyclonal Antibody, Phospho-Specific
    Catalog Number PRB-521P
  
  • PP2A Alpha Subunit (6F9) Monoclonal Antibody
    Catalog Number MRT-204R
  
  • GSK-3β [Ser9] Polyclonal Antibody, Phospho-Specific
    Catalog Number PRB-534P

Product Revision Date: 8/2/2007