

## Product datasheet for **AP02399PU-S**

### MAPT / TAU pThr181 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	Western blot: 1:500-1:1000. Immunohistochemistry on paraffin embedded tissue: 1:50-1:100.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	The antiserum was produced against synthesized phosphopeptide derived from human Tau around the phosphorylation site of threonine 181 (P-K-Tp-P-P).
Specificity:	The antibody detects endogenous levels of Tau only when phosphorylated at threonine 181.
Formulation:	PBS (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150 mM NaCl, 0.02% Sodium Azide and 50% Glycerol. State: Aff - Purified State: Liquid purified IgG fraction
Concentration:	lot specific
Purification:	Affinity-chromatography using epitope-specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatography using non-phosphopeptide corresponding to the phosphorylation site.
Conjugation:	Unconjugated
Storage:	Store the antibody (in aliquots) at -20°C. Avoid repeated freezing and thawing.
Stability:	Shelf life: One year from despatch.
Gene Name:	microtubule associated protein tau
Database Link:	<a href="#">Entrez Gene 4137 Human P10636</a>



[View online »](#)

**Background:**

Tau is a neuronal microtubule associated protein found predominantly on axons. The function of Tau is to promote tubulin polymerisation and stabilise microtubules, but it also serves to link certain signalling pathways to the cytoskeleton. Tau, in its hyperphosphorylated form, is the major component of paired helical filaments (PHF) and neurofibrillary lesions in Alzheimer's disease (AD) brain. Hyperphosphorylation impairs the microtubule binding function of Tau, resulting in the destabilisation of microtubules in AD brains, ultimately leading to the degeneration of the affected neurons. Hyperphosphorylated tau is also found in a range of other central nervous system disorders. Numerous serine/threonine kinases, including GSK3 beta, PKA, Cdk5, and casein kinase II can phosphorylate Tau.

**Synonyms:**

MAPTL, MTBT1, Microtubule-associated protein tau, PHF-tau, Neurofibrillary tangle protein, Paired helical filament-tau

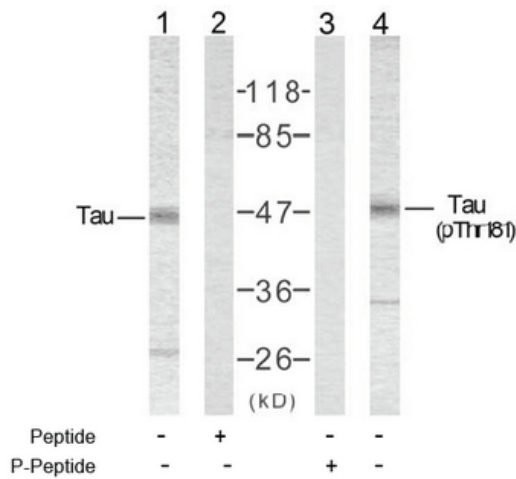
**Product images:**


Figure 2. Western blot analysis of extract from mouse brain tissue using Tau antibody (AP02630PU, Lane 1 and 2) and Tau (phospho-Thr181) antibody (AP02399PU, Lane 3 and 4).

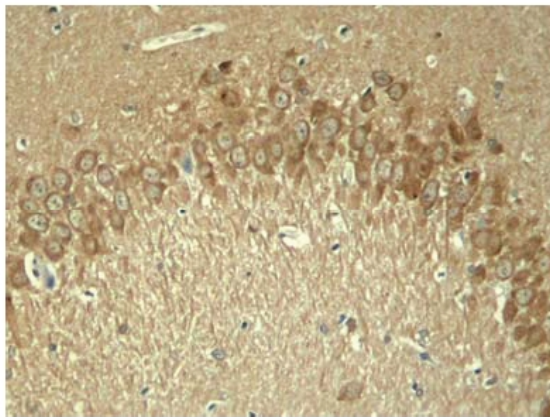


Figure 1. Immunohistochemical analysis of paraffin-embedded rat hippocampal region tissue from a model with Alzheimer's Disease using Tau (phospho-Thr181) antibody (AP02399PU).