

## Product datasheet for **AP02404PU-N**

### MAPT / TAU pSer404 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	<b>Western Blot:</b> 1/500-1/1000. Incubate Membrane with diluted antibody in 5% nonfat milk, 1xTBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight. <b>Immunofluorescence:</b> 1/100-1/200. <b>Immunohistochemistry on Paraffin Sections:</b> 1/50-1/100.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide around phosphorylation site of Serine 404 (D-T- <del>S</del> -P-R) derived from Human Tau.
Specificity:	AP02404PU antibody detects endogenous levels of Tau only when phosphorylated at Serine 404.
Formulation:	PBS (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150 mM NaCl State: Aff - Purified State: Liquid purified Ig fraction Stabilizer: 50% Glycerol Preservative: 0.02% Sodium Azide
Concentration:	lot specific
Purification:	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatography using non-phosphopeptide.
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	48, 62, 78 KDa



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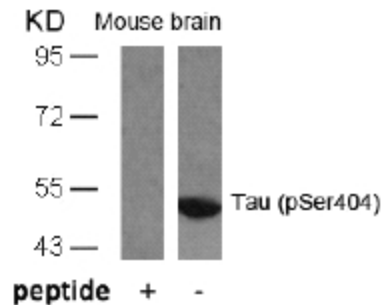
**Gene Name:** microtubule associated protein tau

**Database Link:** [Entrez Gene 4137 Human P10636](#)

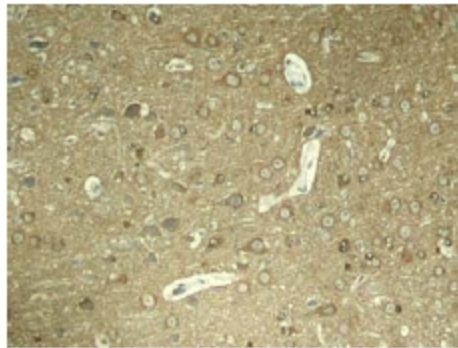
**Background:** Tau is a neuronal microtubule associated protein found predominantly on axons. The function of Tau is to promote tubulin polymerisation and stabilise microtubules, but it also serves to link certain signalling pathways to the cytoskeleton. Tau, in its hyperphosphorylated form, is the 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

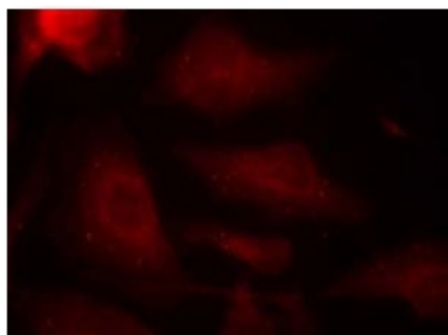
### Product images:



Western blot analysis of extract from Mouse brain tissue using Tau antibody (phospho-Ser404) Cat.-No. AP02404PU and the same antibody preincubated with blocking peptide.



Immunohistochemical analysis of paraffin-embedded Rat hippocampal region tissue from a model with Alzheimer's Disease using Tau antibody (phospho-Ser404) Cat.-No. AP02404PU.



Immunofluorescence staining of methanol-fixed HeLa cells using Tau antibody (phospho-Ser404)  
Cat.-No. AP02404PU.