

# Product datasheet for AP02403PU-N

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OriGene Technologies, Inc.

### MAPT / TAU pSer262 Rabbit Polyclonal Antibody

**Product data:** 

**Product Type:** Primary Antibodies

**Applications:** IF, IHC, WB

Recommended Dilution: Western Blot: 1/500-1/1000.

Immunofluorescence: 1/100-1/200.

**Immunohistochemistry on Paraffin Sections:** 1/50-1/100.

Reactivity: Human, Mouse, Rat

**Host:** Rabbit

Clonality: Polyclonal

Immunogen: Peptide sequence around phosphorylation site of serine 262 (I-G-S(p)-T-E) derived from

Human Tau.

Specificity: AP02403PU-N Antibody detects endogenous levels of Tau only when phosphorylated at

Serine 262.

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 Ig fraction

**Concentration:** lot specific

**Purification:** Affinity Chromatography using epitope-specific phosphopeptide.

Non-phosphospecific antibodies were removed by chromatogramphy using non-

phosphopeptide.

Conjugation: Unconjugated

Storage: Upon receipt, store undiluted (in aliquots) at -20°C.

Avoid repeated freezing and thawing.

**Stability:** Shelf life: one year from despatch.

Predicted Protein Size: 48, 62, 78 kd.

**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:**

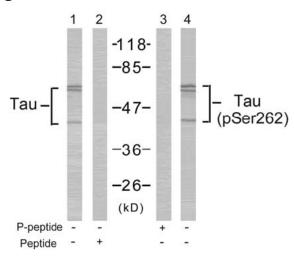


Figure 2. Western blot analysis of extracts from mouse brain tissue using Tau antibody (AP02633PU, Lane 1 and 2) and Tau (phospho-Ser262) antibody (AP02403PU, Lane 3 and 4).

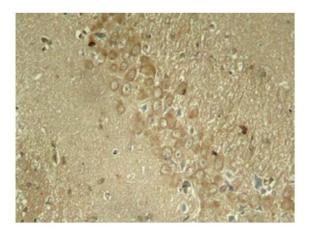


Figure 1. Immunohistochemical analysis of paraffin-embedded rat hippocampal region tissue from a model with Alzheimer's Disease using Tau (phospho-Ser262) antibody (AP02403PU).



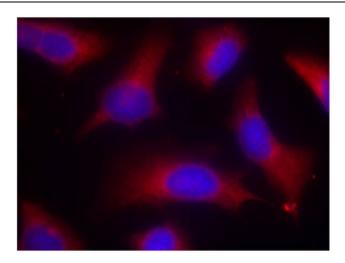


Figure 3. Immunofluorescence staining of methanol-fixed HeLa cells using Tau (phospho-Ser262) antibody (#AP02403PU, Red).