

Phospho-Tau (S396) Antibody

Rabbit mAb Catalog # AP90660

Product Information

Application WB, IHC **Primary Accession** P10636

Reactivity Rat, Human, Mouse

Clonality Monoclonal

Other Names MAPT; Microtubule-associated protein tau; MTBT1; Neurofibrillary tangle

protein; Paired helical filament-tau; PHF-tau;

IsotypeRabbit IgGHostRabbitCalculated MW78928

Additional Information

Dilution WB 1:10000~1:20000 IHC1:100~1:500

Purification Affinity-chromatography

Immunogen A synthesized peptide derived from human Phospho-Tau (S396)

DescriptionTau is a heterogeneous microtubule-associated protein that promotes and

stabilizes microtubule assembly, especially in axons. Six isoforms with different amino-terminal inserts and different numbers of tandem repeats

near the carboxy-terminus have been identified, and tau is

hyperphosphorylated at approximately 25 sites by ERK, GSK-3 and CDK5 . Phosphorylation decreases the ability of tau to bind to microtubules.

Neurofibrillary tangles are a major hallmark of Alzheimer's disease and these

tangles are bundles of paired helical filaments composed of

hyperphosphorylated tau.

Storage Condition and Buffer Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium

azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term.

Avoid freeze / thaw cycle.

Protein Information

Name MAPT (HGNC:6893)

Synonyms MAPTL, MTBT1, TAU

Function Promotes microtubule assembly and stability, and might be involved in the

establishment and maintenance of neuronal polarity (PubMed:<u>21985311</u>). The C-terminus binds axonal microtubules while the N-terminus binds neural plasma membrane components, suggesting that tau functions as a linker protein between both (PubMed:<u>21985311</u>, PubMed:<u>32961270</u>). Axonal polarity is predetermined by TAU/MAPT localization (in the neuronal cell) in the domain of the cell body defined by the centrosome. The short isoforms

allow plasticity of the cytoskeleton whereas the longer isoforms may preferentially play a role in its stabilization.

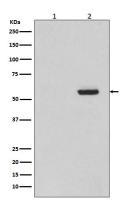
Cellular Location

Cytoplasm, cytosol. Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cytoplasm, cytoskeleton. Cell projection, axon. Cell projection, dendrite. Secreted Note=Mostly found in the axons of neurons, in the cytosol and in association with plasma membrane components (PubMed:10747907). Can be secreted; the secretion is dependent on protein unfolding and facilitated by the cargo receptor TMED10; it results in protein translocation from the cytoplasm into the ERGIC (endoplasmic reticulum-Golgi intermediate compartment) followed by vesicle entry and secretion (PubMed:32272059).

Tissue Location

Expressed in neurons. Isoform PNS-tau is expressed in the peripheral nervous system while the others are expressed in the central nervous system

Images



Western blot analysis of Phospho-Tau (S396) expression in (1) SH-SY5Y cell lysate treated with AP; (2) SH-SY5Y cell lysate.

Image not found: 202311/AP90660-IHC.jpg

Immunohistochemical analysis of paraffin-embedded human breast carcinoma, using Phospho-Tau (S396) Antibody.

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