10320 Camino Santa Fe, Suite G
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Phospho-Tau Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10404

Specification

Phospho-Tau Antibody - Product Information

Application	**WB**
Primary Accession	P10636
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**78928**

Phospho-Tau Antibody - Additional Information

Gene ID 4137

Application & Usage	**Western blotting (1:500-2000). However, the optimal concentrations should be determined individually.**

Other Names
MAPT; DDPAC; FLJ31424; FTDP-17; MAPTL; MGC138549; MSTD; MTBT1; MTBT2; PPND; TAU

Target/Specificity
Phospho-Tau

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µl affinity purified rabbit polyclonal antibody in phosphate-buffered saline (PBS) containing 30% glycerol, 0.5% BSA, and 0.01% thimerosal.

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
Phospho-Tau Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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Phospho-Tau Antibody - 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:21985311). 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:21985311, PubMed:32961270). 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

Phospho-Tau Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Phospho-Tau Antibody - Images

Phospho-Tau Antibody - Background

Tau, a microtubule-binding protein which serves to stabilize microtubules in growing axons, is found to be hyperphosphorylated in paired helical filaments (PHF), the major fibrous component of neurofibrillary lesions associated with Alzheimer’s disease. Hyperphosphorylation of Tau is tho µght to be the critical event leading to the assembly of PHF. Six Tau protein isoforms have been identified, all of which are phosphorylated by GSK3. This presents the possibility that miscues in GSK3 signaling contribute to the onset of Alzheimer’s disease.