

Phospho-Tau (S214) Antibody Rabbit mAb Catalog # AP93125

## **Specification**

# Phospho-Tau (S214) Antibody - Product Information

ApplicationWB, IHCPrimary AccessionP10636ClonalityMonoclonalOther NamesMAPT; Microtubule-associated protein tau; MTBT1; Neurofibrillary tangle protein; Paired helicalfilament-tau; PHF-tauFor the second sec

| Isotype       | Rabbit IgG |
|---------------|------------|
| Host          | Rabbit     |
| Calculated MW | 78928 Da   |

### Phospho-Tau (S214) Antibody - Additional Information

| Dilution                     | WB~~1:1000<br>IHC~~1:100~500  |
|------------------------------|---|
| Purification<br>Immunogen    | Affinity-chromatography<br>A synthesized peptide derived from human<br>Phospho-Tau (S214)   |
| Description                  | Promotes microtubule assembly and<br>stability, and might be involved in the<br>establishment and maintenance of<br>neuronal polarity. The C-terminus binds<br>axonal microtubules while the N-terminus<br>binds neural plasma membrane<br>components, suggesting that tau functions<br>as a linker protein between both. |
| Storage Condition and Buffer | Rabbit IgG in phosphate buffered saline ,<br>pH 7.4, 150mM NaCl, 0.02% sodium azide<br>and 50% glycerol. Store at +4°C short<br>term. Store at -20°C long term. Avoid<br>freeze / thaw cycle.   |

### Phospho-Tau (S214) Antibody - Protein Information

Name MAPT (<u>HGNC:6893</u>)

Synonyms MAPTL, MTBT1, TAU

#### Function

Promotes microtubule assembly and stability, and might be involved in the establishment and maintenance of neuronal polarity (PubMed:<a href="http://www.uniprot.org/citations/21985311" target="\_blank">21985311</a>). 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:<a href="http://www.uniprot.org/citations/21985311"

target="\_blank">21985311</a>, PubMed:<a href="http://www.uniprot.org/citations/32961270" target="\_blank">32961270</a>). 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**

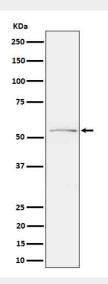
Expressed in neurons. Isoform PNS-tau is expressed in the peripheral nervous system while the others are expressed in the central nervous system

### Phospho-Tau (S214) Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- <u>Dot Blot</u>
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### Phospho-Tau (S214) Antibody - Images



Western blot analysis of Phospho-Tau (S214) expression in mouse cerebral cortex cell lysate.