

### MAPT / Tau Antibody (Ser404)

Rabbit Polyclonal Antibody Catalog # ALS13265

## **Specification**

### MAPT / Tau Antibody (Ser404) - Product Information

Application WB, IHC Primary Accession P10636

Reactivity Human, Mouse, Rat, Rabbit, Monkey, Goat,

Horse, Bovine, Dog

Host Rabbit
Clonality Polyclonal
Calculated MW 79kDa KDa

## MAPT / Tau Antibody (Ser404) - Additional Information

**Gene ID 4137** 

#### **Other Names**

Microtubule-associated protein tau, Neurofibrillary tangle protein, Paired helical filament-tau, PHF-tau, MAPT, MAPTL, MTBT1, TAU

## **Target/Specificity**

endogenous levels of total Tau protein

### **Reconstitution & Storage**

Aliquot and store at -20°C. Minimize freezing and thawing.

### **Precautions**

MAPT / Tau Antibody (Ser404) is for research use only and not for use in diagnostic or therapeutic procedures.

#### MAPT / Tau Antibody (Ser404) - 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:<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" 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**

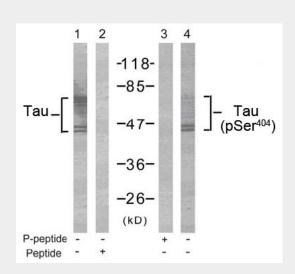
Expressed in neurons. Isoform PNS-tau is expressed in the peripheral nervous system while the others are expressed in the central nervous system

## MAPT / Tau Antibody (Ser404) - Protocols

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

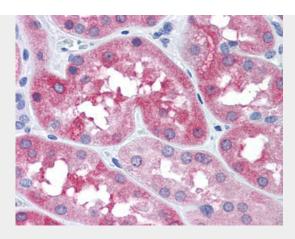
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

### MAPT / Tau Antibody (Ser404) - Images

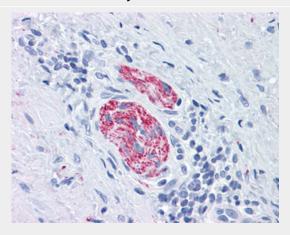


Western blot of extract from mouse brain tissue using Rabbit Anti-Tau (Ab-404) Polyclonal...





Anti-MAPT / Tau antibody IHC of human kidney.



Anti-MAPT / Tau antibody IHC of human nerve.

## MAPT / Tau Antibody (Ser404) - Background

Promotes microtubule assembly and stability, and might be involved in the establishment and maintenance of neuronal polarity. 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. 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.

# MAPT / Tau Antibody (Ser404) - References

Goedert M., et al. Proc. Natl. Acad. Sci. U.S.A. 85:4051-4055(1988). Goedert M., et al. EMBO J. 8:393-399(1989). Lee G., et al. Neuron 2:1615-1624(1989). Goedert M., et al. Neuron 3:519-526(1989). Andreadis A., et al. Biochemistry 31:10626-10633(1992).