

**MAPT / Tau Antibody (N-Terminus)**  
**Rabbit Polyclonal Antibody**  
**Catalog # ALS16416****Specification**

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**MAPT / Tau Antibody (N-Terminus) - Product Information**

Application	IHC
Primary Accession	<a href="#">P10636</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	79kDa KDa

**MAPT / Tau Antibody (N-Terminus) - 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**

TAU antibody is human, mouse and rat reactive. Multiple isoforms of TAU are known to exist; this antibody will only detect the two longest isoforms (WB band observed at approx. 90kDa).

**Reconstitution & Storage**

Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

**Precautions**

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

**MAPT / Tau Antibody (N-Terminus) - 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</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**

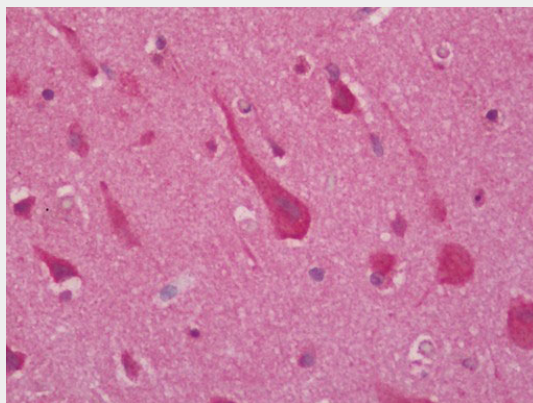
Expressed in neurons. Isoform PNS-tau is expressed in the peripheral nervous system while the others are expressed in the central nervous system

### **MAPT / Tau Antibody (N-Terminus) - Protocols**

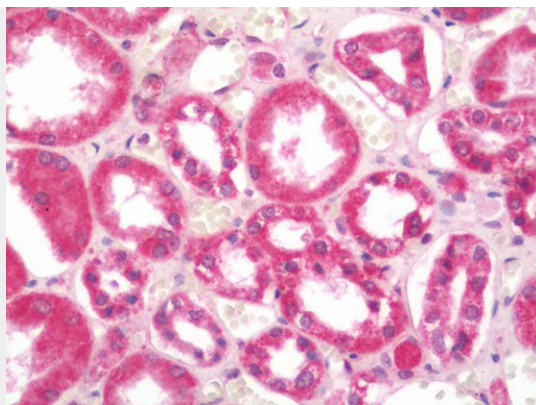
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### **MAPT / Tau Antibody (N-Terminus) - Images**



Human Brain, Cortex: Formalin-Fixed, Paraffin-Embedded (FFPE)



Human Kidney: Formalin-Fixed, Paraffin-Embedded (FFPE)

#### **MAPT / Tau Antibody (N-Terminus) - 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 (N-Terminus) - 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).