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

Specification

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

Application	**IHC**
Primary Accession	P10636
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: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).

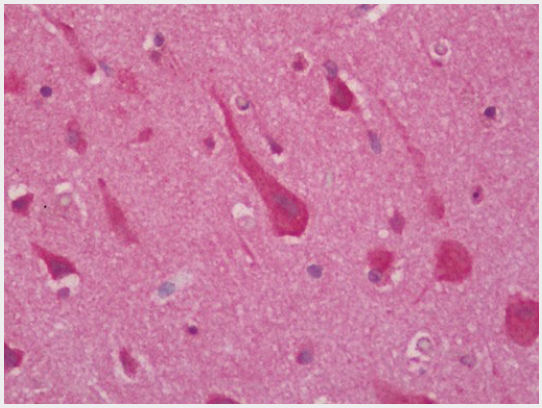
Tissue Location
Expressed in neurons. Isoform PNS-tau is expressed in the peripheral nervous system while the others are expressed in the central nervous system

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 Cytomety
- Cell Culture

MAPT / Tau Antibody (N-Terminus) - Images



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

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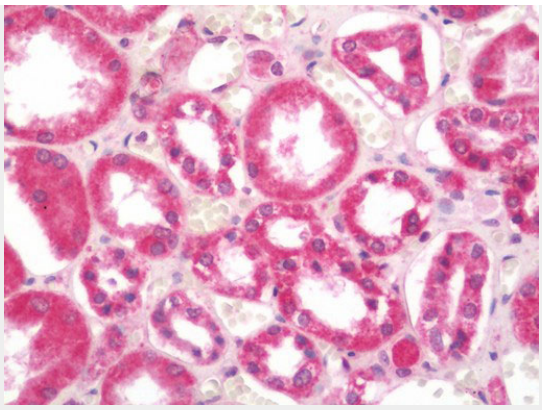

Human Kidney: Formalin-Fixed, Paraffin-Embedded (FFPE)

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).
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Andreadis A.,et al.Biochemistry 31:10626-10633(1992).