

# TAU (MAPT) Antibody (S720)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP1425c

## Product Information

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<b>Application</b>	WB, IHC-P, IHC, E
<b>Primary Accession</b>	<a href="#">P10636</a>
<b>Other Accession</b>	<a href="#">P19332</a> , <a href="#">P10637</a> , <a href="#">P29172</a>
<b>Reactivity</b>	Human, Cynomolgus
<b>Predicted</b>	Bovine, Mouse, Rat
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Calculated MW</b>	78928
<b>Antigen Region</b>	699-728

## Additional Information

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<b>Gene ID</b>	4137
<b>Other Names</b>	Microtubule-associated protein tau, Neurofibrillary tangle protein, Paired helical filament-tau, PHF-tau, MAPT, MAPTL, MTBT1, TAU
<b>Target/Specificity</b>	This TAU(MAPT) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 699-728 amino acids from human TAU(MAPT).
<b>Dilution</b>	WB~~1:1000 IHC-P~~1:100~500 IHC~~1:100~500 E~~Use at an assay dependent concentration.
<b>Format</b>	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Precautions</b>	TAU (MAPT) Antibody (S720) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	MAPT ( <a href="#">HGNC:6893</a> )
<b>Synonyms</b>	MAPTL, MTBT1, TAU

<b>Function</b>	Promotes microtubule assembly and stability, and might be involved in the establishment and maintenance of neuronal polarity (PubMed: <a href="#">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="#">21985311</a> , PubMed: <a href="#">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.
<b>Cellular Location</b>	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).
<b>Tissue Location</b>	Expressed in neurons. Isoform PNS-tau is expressed in the peripheral nervous system while the others are expressed in the central nervous system

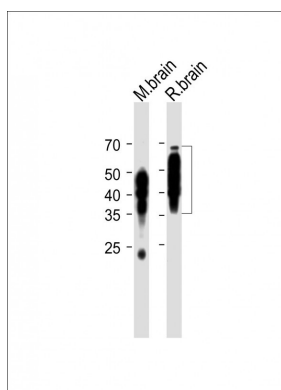
## Background

MAPT transcripts are differentially expressed in the nervous system, depending on stage of neuronal maturation and neuron type. MAPT gene mutations have been associated with several neurodegenerative disorders such as Alzheimer's disease, Pick's disease, frontotemporal dementia, cortico-basal degeneration and progressive supranuclear palsy.

## References

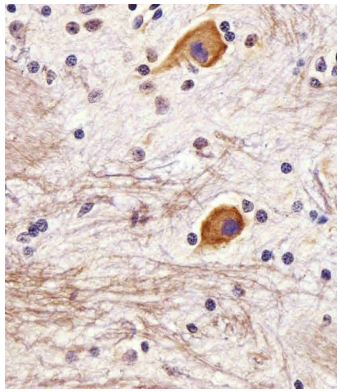
McCulloch,C.C., Hum. Genet. 123 (3), 257-265 (2008)  
 Mateo,I., Dement Geriatr Cogn Disord 25 (4), 317-320 (2008)  
 Beck,J., Brain 131 (PT 3), 706-720 (2008)

## Images

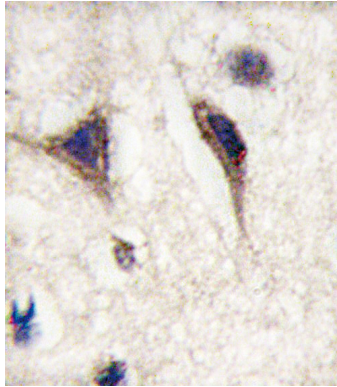


All lanes: Anti-TAU (MAPT) Antibody (S720) at 1:2000 dilution Lane 1: mouse brain lysate Lane 2: rat brain lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) E42at 1/15000 dilution. Observed band size: 34-70 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

AP1425c staining TAU in Monkey brain tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0.5 hour at room temperature; antigen retrieval was by heat



mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



Formalin-fixed and paraffin-embedded human brain tissue reacted with MAPT Antibody (S720) (Cat.#AP1425c), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.