

**TAU Antibody (C-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP2040B****Specification**

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**TAU Antibody (C-term) - Product Information**

Application	IF, WB, IHC-P,E
Primary Accession	<a href="#">P10636</a>
Other Accession	<a href="#">P19332</a> , <a href="#">P10637</a> , <a href="#">P29172</a>
Reactivity	Human, Mouse, Rat, Cynomolgus Monkey
Predicted	Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	677-707

**TAU Antibody (C-term) - 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**

This TAU antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 677-707 amino acids from the C-terminal region of human TAU.

**Dilution**

IF~~1:10~50

WB~~1:2000

IHC-P~~1:25

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

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.

**Precautions**

TAU Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**TAU Antibody (C-term) - 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).

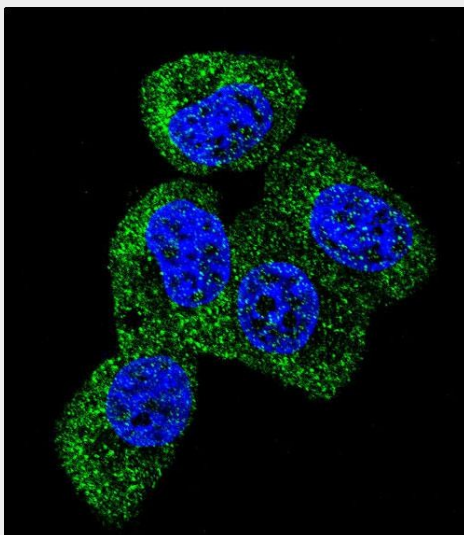
**Tissue Location**

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

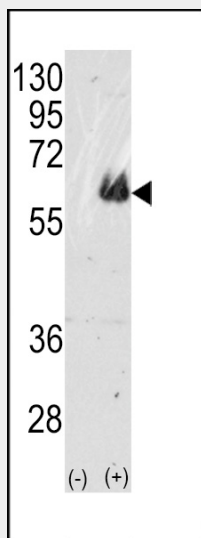
**TAU Antibody (C-term) - Protocols**

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

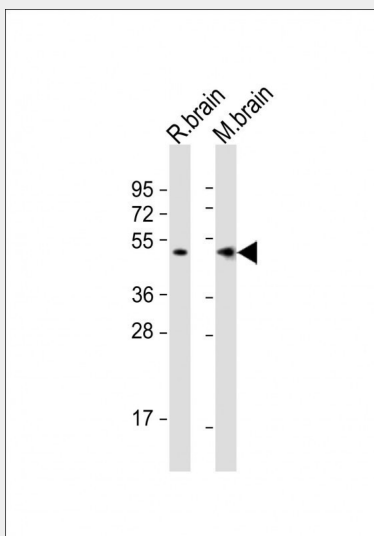
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**TAU Antibody (C-term) - Images**

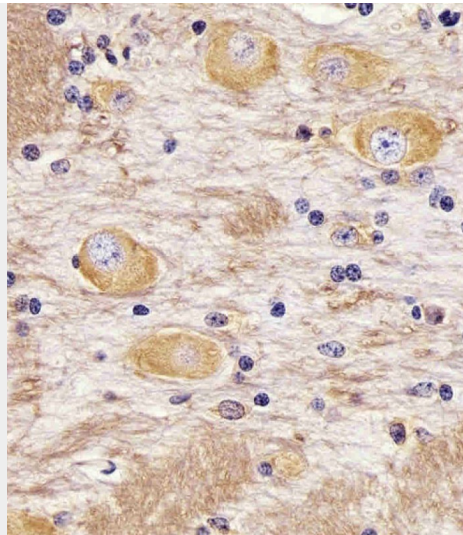
Confocal immunofluorescent analysis of TAU Antibody (C-term)(Cat#AP2040b) with MCF-7 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green).DAPI was used to stain the cell nuclear (blue).



Western blot analysis of TAU(arrow) using rabbit polyclonal TAU Antibody (Cat.#AP2040b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the TAU gene (Lane 2) (Origene Technologies).



All lanes : Anti-TAU Antibody (K692) at 1:2000 dilution Lane 1: rat brain lysate Lane 2: mouse brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 79 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



AP2040b staining TAU in Cynomolgus 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 hour at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.

#### **TAU Antibody (C-term) - Background**

The microtubule-associated protein tau (MAPT) gene transcript undergoes complex, regulated alternative splicing, giving rise to several mRNA species. MAPT transcripts are differentially expressed in the nervous system, depending on stage of neuronal maturation and neuron type. MAPT gene mutations result in several neurodegenerative disorders such as Alzheimer's disease, Pick's disease, frontotemporal dementia, cortico-basal degeneration and progressive supranuclear palsy.

#### **TAU Antibody (C-term) - References**

Yoshiyama, Y., et al., J. Neurosci. 23(33):10662-10671 (2003).  
Horiguchi, T., et al., Am. J. Pathol. 163(3):1021-1031 (2003).  
Gamblin, T.C., et al., Proc. Natl. Acad. Sci. U.S.A. 100(17):10032-10037 (2003).  
Kraemer, B.C., et al., Proc. Natl. Acad. Sci. U.S.A. 100(17):9980-9985 (2003).  
Yancopoulou, D., et al., J. Neuropathol. Exp. Neurol. 62(8):878-882 (2003).