10320 Camino Santa Fe, Suite A
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TAU Antibody (C-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2040B

Specification

TAU Antibody (C-term) - Product Information

Application	**WB, IF, IHC-P,E**
Primary Accession	P10636
Other Accession	P19332, P10637, P29172
Reactivity	**Human, Mouse, Rat, Cynomolgus**
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
WB~~1:2000
IF~~1:10~50
IHC-P~~1:25
E~~Use at an assay dependent concentration.

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 Cytomety
- Cell Culture

TAU Antibody (C-term) - Images

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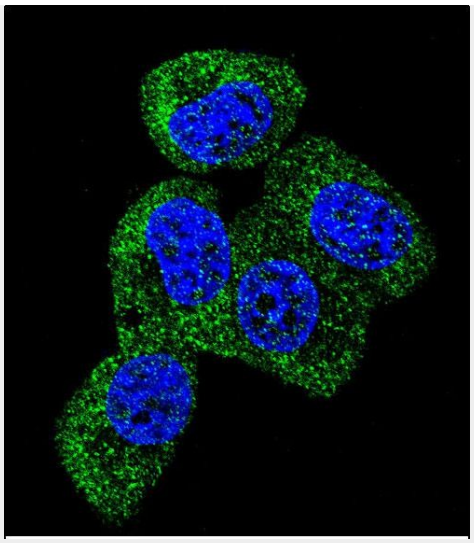
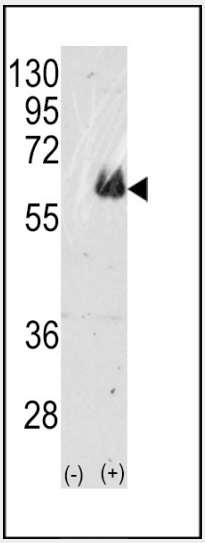


Confocal immunofluorescent analysis of TAU Antibody (C-term)(Cat#AP2040b) with MCF-7 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green).DAPI was used to stain the cell nuclear (blue).



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).

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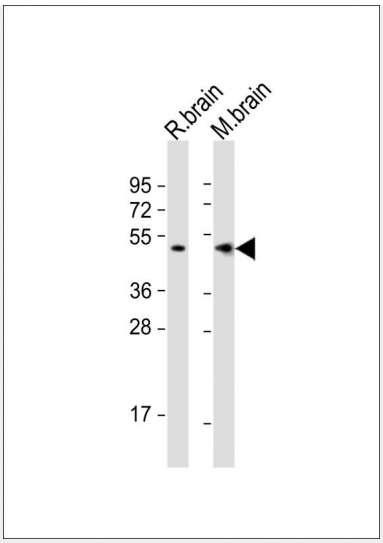
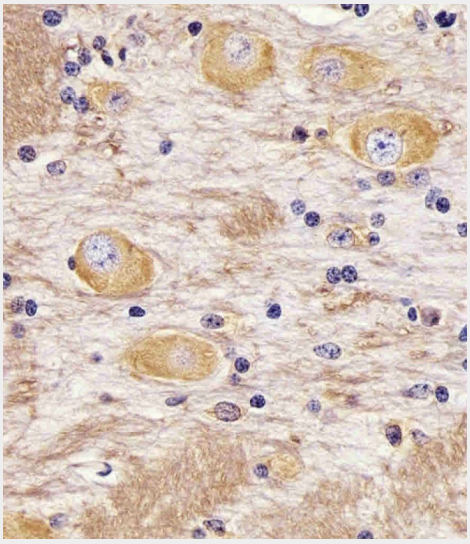


All lanes : Anti-TAU Antibody (K692) at 1:2000 dilution Lane 1: rat brain lysate Lane 2: mouse brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 79 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



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 hours 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

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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).