

Anti-Tau Antibody
Catalog # ABO10801**Specification**

Anti-Tau Antibody - Product Information

Application	WB
Primary Accession	P10636
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Microtubule-associated protein tau(MAPT) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Tau Antibody - Additional Information

Gene ID 4137

Other Names

Microtubule-associated protein tau, Neurofibrillary tangle protein, Paired helical filament-tau, PHF-tau, MAPT, MAPTL, MTBT1, TAU

Calculated MW

78928 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

Cytoplasm, cytosol . Cell membrane ; Peripheral membrane protein ; Cytoplasmic side .
Cytoplasm, cytoskeleton . Cell projection, axon . Mostly found in the axons of neurons, in the cytosol and in association with plasma membrane components.

Tissue Specificity

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

Protein Name

Microtubule-associated protein tau

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminus of human Tau(29-44aa

YTMHQDQEGDTDAGLK), different from the related mouse and rat sequences by three amino acids.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Contains 4 Tau/MAP repeats.

Anti-Tau Antibody - 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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/21985311), PubMed: [32961270](http://www.uniprot.org/citations/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

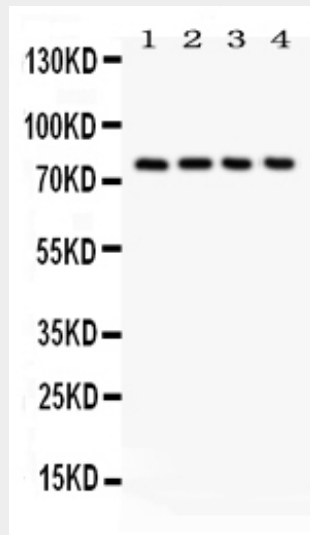
Anti-Tau Antibody - Protocols

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](#)

Anti-Tau Antibody - Images



Anti-Tau antibody, ABO10801, Western blotting All lanes: Anti (ABO10801) at 0.5ug/ml Lane 1: Rat Brain Tissue Lysate at 50ug Lane 2: Mouse Brain Tissue Lysate at 50ug Lane 3: HT1080 Whole Cell Lysate at 40ug Lane 4: MCF-7 Whole Cell Lysate at 40ug Predicted bind size: 79KD Observed bind size: 79KD

Anti-Tau Antibody - Background

MAPT, Microtubule-associated protein tau, appears to be enriched in axons. The MAPT gene is assigned to chromosome 17 by hybridization of a cDNA clone to flow-sorted and spot-blotting chromosomes and to 17q21 by in situ hybridization, containing 16 exons. The tau proteins are the product of alternative splicing from a single gene that in humans is designated MAPT. Tau proteins are proteins that stabilize microtubules. They are abundant in neurons in the central nervous system and are less common elsewhere. When tau proteins are defective, and no longer stabilize microtubules properly, they can result in dementias such as Alzheimer's disease.