

Anti-Tau Antibody (Monoclonal, TAU-2)
Catalog # ABO10477**Specification**

Anti-Tau Antibody (Monoclonal, TAU-2) - Product Information

Application	WB
Primary Accession	P19332
Host	Mouse
Isotype	Mouse IgG1
Reactivity	Human
Clonality	Monoclonal
Format	Lyophilized

Description

Mouse IgG monoclonal antibody for Tau, microtubule-associated protein tau (MAPT) detection. Tested with WB, IHC-P in Human;bovine. No cross reactivity with other proteins.

Reconstitution

Add 1ml of PBS buffer will yield a concentration of 100ug/ml.

Anti-Tau Antibody (Monoclonal, TAU-2) - Additional Information**Other Names**

Microtubule-associated protein tau, Neurofibrillary tangle protein, Paired helical filament-tau, PHF-tau, Mapt, Mtapt, Tau

Calculated MW

78564 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 1-2 µg/ml, Human, bovine, By Heat

Western blot, 0.5-1 µg/ml, Human, bovine

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. The larger forms (isoform tau-A and isoform tau-B) are preferentially expressed in the peripheral nervous system while the other are expressed in the central nervous system. Low amounts of the larger forms are also found in limited areas of the CNS.

Protein Name

Microtubule-associated protein tau

Contents

Mouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg NaN₃ as preservative.

Immunogen

Bovine microtubule-associated proteins(MAPs).

Purification

Ascites

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 (Monoclonal, TAU-2) - Protein Information

Name Mapt {ECO:0000312|RGD:69329}

Synonyms Mtapt, Tau

Function

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 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 {ECO:0000250|UniProtKB:P10636}. Cell membrane {ECO:0000250|UniProtKB:P10636}; Peripheral membrane protein {ECO:0000250|UniProtKB:P10636}; Cytoplasmic side {ECO:0000250|UniProtKB:P10636}. Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:P10636}. Cell projection, axon {ECO:0000250|UniProtKB:P10636}. Cell projection, dendrite {ECO:0000250|UniProtKB:P10636}. Secreted {ECO:0000250|UniProtKB:P10636}. Note=Mostly found in the axons of neurons, in the cytosol and in association with plasma membrane components. 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. {ECO:0000250|UniProtKB:P10636}

Tissue Location

Expressed in neurons. The larger forms (isoform tau-A and isoform tau-B) are preferentially expressed in the peripheral nervous system while the other are expressed in the central nervous system. Low amounts of the larger forms are also found in limited areas of the CNS

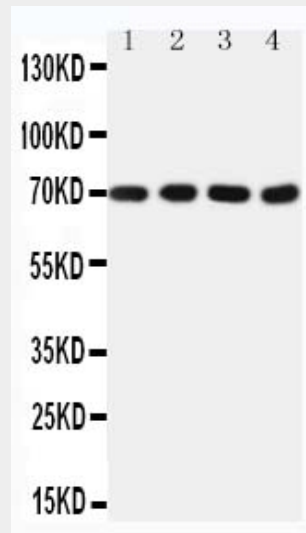
Anti-Tau Antibody (Monoclonal, TAU-2) - Protocols

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 (Monoclonal, TAU-2) - Images



Anti-Tau antibody (monoclonal), ABO10477, Western blotting
Lane 1: Rat Brain Tissue Lysate
Lane 2: Rat Brain Tissue Lysate
Lane 3: Mouse Brain Tissue Lysate
Lane 4: Mouse Brain Tissue Lysate

Anti-Tau Antibody (Monoclonal, TAU-2) - Background

The microtubule-associated proteins (MAPs) coassemble with tubulin into microtubules in vitro. Microtubule-associated protein tau appears to be enriched in axons. Tau are composed of 352 to 441 amino acids. The isoforms differ from each other by the presence or absence of 29-amino acid or 58-amino acid inserts located in the N terminus and a 31-amino repeat located in the C terminus. tau is important in establishing and maintaining neuronal morphology and is a major component of the neurofibrillary tangles (NFTs) characteristic of Alzheimer's brain. Microtubule-associated protein tau (MTBT1) is mapped to chromosome 17q21.