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# Anti-Tau Antibody

Catalog # ABO10801

## Product Information

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| **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. |

## Additional Information

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| **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 |
| **Application Details** | Western blot, 0.1-0.5 □g/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. |
| **Source** | Eukaryota |
| **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. |

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| **Cross Reactivity** | No cross reactivity with other proteins |
| **Storage** | At -20˚C for one year. After r˚Constitution, 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. |

## Protein Information

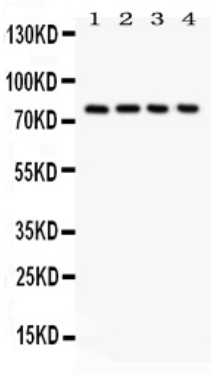
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| **Name** | MAPT ( HGNC:6893) |
| **Synonyms** | MAPTL, MTBT1, TAU |
| **Function** | Promotes microtubule assembly and stability, and might be involved in the establishment and maintenance of neuronal polarity (PubMed:21985311). The C-terminus binds 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 |

## 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-blotted chromosomes and to 17q21 by in situ hybridization, containing 16 exons. The tau proteins are the product of alternative splicingfrom 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.

## Images

Anti-Tau antibody, ABO10801, Western blottingAll lanes: Anti (ABO10801) at 0.5ug/mlLane 1: Rat Brain Tissue Lysate at 50ugLane 2: Mouse Brain Tissue Lysate at 50ugLane 3: HT1080 Whole Cell Lysate at 40ugLane 4: MCF-7 Whole Cell Lysate at 40ugPredicted bind size: 79KDObserved bind size: 79KD




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