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TAU Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP2040b

Specification

TAU Antibody (C-term) Blocking Peptide - Product Information

Primary Accession P10636

TAU Antibody (C-term) Blocking Peptide - 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
The synthetic peptide sequence used to generate the antibody AP2040b was selected from the C-term region of human TAU . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

TAU Antibody (C-term) Blocking Peptide - 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) Blocking Peptide - Protocols

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

- Blocking Peptides

TAU Antibody (C-term) Blocking Peptide - Images

TAU Antibody (C-term) Blocking Peptide - 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) Blocking Peptide - 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).