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MAPT Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20990c

Product Information

Application	WB, E
Primary Accession	P10636
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB51224
Calculated MW	78928

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 MAPT antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 694-728 amino acids from the C-terminal region of human MAPT.
Dilution	WB~~1:1000 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	MAPT Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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

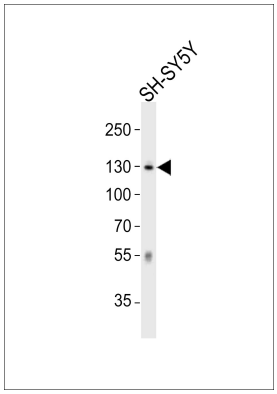
Background

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/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.

References

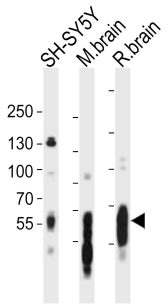
Goedert M.,et al.Proc. Natl. Acad. Sci. U.S.A. 85:4051-4055(1988).
Goedert M.,et al.EMBO J. 8:393-399(1989).
Lee G.,et al.Neuron 2:1615-1624(1989).
Goedert M.,et al.Neuron 3:519-526(1989).
Andreadis A.,et al.Biochemistry 31:10626-10633(1992).

Images



Western blot analysis of lysate from SH-SY5Y cell line, using MAPT Antibody (C-term)(Cat. #AP20990c). AP20990c was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 20ug.

Western blot analysis of lysates from SH-SY5Y cell line, mouse brain, rat brain tissue lysate(from left to right), using MAPT Antibody (C-term)(Cat. #AP20990c).



AP20990c was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.