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Anti-MAPT / Tau Antibody (clone MCA-2E9)

Mouse Anti Human Monoclonal Antibody
Catalog # ALS17373

Product Information

Application	WB, IHC-P, IF, ICC
Primary Accession	P10636
Predicted	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Clone Names	MCA-2E9
Calculated MW	78928
Concentration (mg/ml)	1 mg/ml

Additional Information

Gene ID	4137
Alias Symbol	MAPT
Other Names	MAPT, FTDP-17, MSTD, Neurofibrillary tangle protein, PHF-tau, MTBT2, PPND, DDPAC, MAPTL, MTBT1, Paired helical filament-tau, TAU
Target/Specificity	Clone 2E9 is known to react with tau from human, mouse and rat. Since tau is highly conserved, it is likely that the antibody is effective on other species also.
Reconstitution & Storage	PBS, 10 mM sodium azide. +4°C or -20°C, Avoid repeated freezing and thawing.
Precautions	Anti-MAPT / Tau Antibody (clone MCA-2E9) 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