Product Data Sheet
Phospho-Tau (T231) (10X15) Rabbit Monoclonal Antibody

Product name:	Phospho-Tau (T231) (10X15) Rabbit Monoclonal Antibody
Cat number:	MABN06036
Conjugate:	Unconjugated
Size:	100µL
Clone:	T231
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	Thr231 of human Tau
Reactivity:	Human,Mouse,Rat
Applications:	WB 1:1000-1:5000,IHC 1:200-1:500,IP 1:20-1:50,IF-P 1:200-1:500
Molecular Weight:	79kDa
Purification:	Affinity purification
Form:	liquid
Buffer:	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Synonyms:	MAPT; Microtubule-associated protein tau; MTBT1; Neurofibrillary tangle protein; Paired helical filament-tau; PHF-tau;
Source:	Rabbit
Background:	Tau is a heterogeneous microtubule-associated protein that promotes and stabilizes microtubule assembly, especially in axons. Six isoforms with different amino-terminal inserts and different numbers of tandem repeats near the carboxy-terminus have been identified, and tau is hyperphosphorylated at approximately 25 sites by ERK, GSK-3 and CDK5. Phosphorylation decreases the ability of tau to bind to microtubules. Neurofibrillary tangles are a major hallmark of Alzheimer's disease and these tangles are bundles of paired helical filaments composed of hyperphosphorylated tau. 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.

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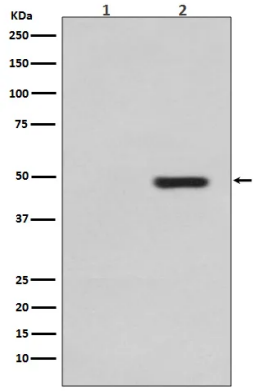

Western blot analysis of Phospho-Tau (T231) expression in (1) SH-SY5Y cell lysate; (2) SH-SY5Y cell lysate, treated with sorbitol.