

**Product Name: Phospho-Tau (T231) (10X15) Rabbit
Monoclonal Antibody
Catalog #: AMRe06036**



Summary

Production Name	Phospho-Tau (T231) (10X15) Rabbit Monoclonal Antibody
Description	Rabbit Monoclonal Antibody
Host	Rabbit
Application	WB,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Phospho Antibody
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
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.
Purification	Affinity purification

Immunogen

Gene Name	MAPT
Alternative Names	MAPT; Microtubule-associated protein tau; MTBT1; Neurofibrillary tangle protein; Paired helical filament-tau; PHF-tau;
Gene ID	4137.0
SwissProt ID	P10636.

Application

Dilution Ratio	WB 1:500-1:2000
Molecular Weight	79kDa

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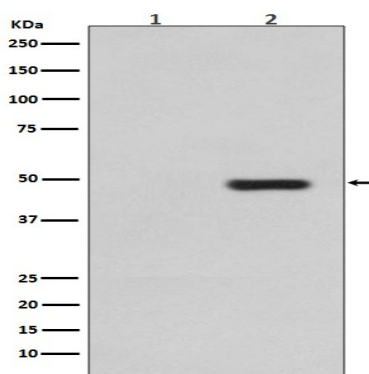


Background

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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/21985311), PubMed:[32961270](http://www.uniprot.org/citations/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.

Research Area

Image Data



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

Note

For research use only.