



Catalog Number:	MO18002	Host:	Mouse
Product Type:	Protein G purified IgG ₁	Species Reactivity:	Human; Rat; Human
Immunogen Sequence:	Native bovine tau and the epitope maps to the carboxy-terminus of the protein.	Format:	Liquid in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide.
Applications	Immunohistochemistry-1:800 (Paraffin) Western Blotting-1:1000 Immunofluorescence-1:800 (Paraffin and Frozen) Immunoprecipitation-1:50		
References:	Dilutions listed as a recommendation. Optimal dilution should be determined by investigator. Kosik, K.S. et al. (1988) Epitopes that span the tau molecule are shared with paired helical filaments. <i>Neuron</i> 1, 817-825. Mawal-Dewan, M. et al. (1994) The phosphorylation state of tau in the developing rat brain is regulated by phosphoprotein phosphatases. <i>J. Biol. Chem.</i> 269, 30981-30987.		
Storage:	Antibody can be aliquotted and stored frozen at -20° C to -70° C in a manual defrost freezer for six months without detectable loss of activity. The antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. <i>Avoid repeated freeze-thaw cycles.</i>		

Application Notes

Specificity

Tau (Tau46) Mouse mAb detects endogenous levels of total tau protein and also cross-reacts with MAP2 at 280kD. Tau (Tau46) Mouse mAb is predicted to detect all six isoforms of tau based on the amino acid sequence.

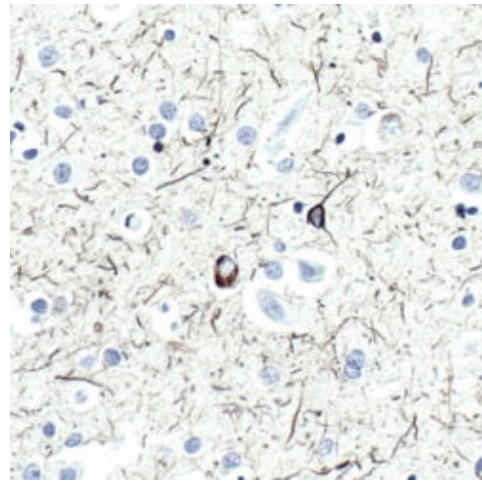
Description/Data:

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. In particular, phosphorylation of Ser396 by GSK-3 or CDK5 destabilizes microtubules in Alzheimer's disease. Furthermore, inclusions of tau are found in a number of other neurodegenerative diseases, collectively known as tauopathies.

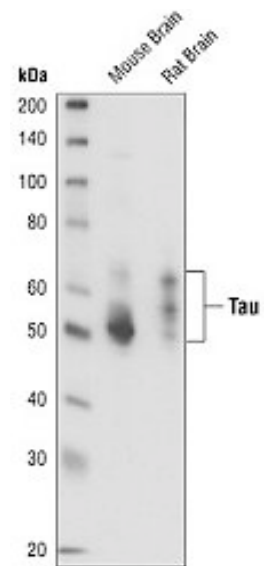
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IHC Image: Tau staining of paraffin-embedded Alzheimer's brain.



WB Image: Western blot analysis of extracts from mouse and rat brain.



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