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#9632

Phospho-Tau (Ser396) (PHF13) Mouse mAb

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: M R	Sensitivity: Endogenous	MW (kDa): 50-80	Source/Isotype: Mouse IgG2b	UniProt ID: #P10636-8	Entrez-Gene Id: 4137
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Product Usage Information	Application Western Blotting	Dilution 1:1000
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.	
Specificity/Sensitivity	Phospho-Tau (Ser396) (PHF13) Mouse mAb detects endogenous levels of Tau only when phosphorylated at serine 396.	
Species predicted to react based on 100% sequence homology	Human	
Source / Purification	Monoclonal antibody is produced by immunizing animals with human purified Tau (Hoffmann et al., 1997).	
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, glycogen synthase kinase-3 (GSK-3), and CDK5 (1,2). Phosphorylation decreases the ability of tau to bind to microtubules. Neurofibrillary tangles are a major hallmark of Alzheimer's disease (AD); these tangles are bundles of paired helical filaments (PHFs) composed of hyperphosphorylated tau. In particular, phosphorylation at Ser396 by GSK-3 or CDK5 destabilizes microtubules. Furthermore, research studies have shown that inclusions of tau are found in a number of other neurodegenerative diseases, collectively known as tauopathies (1,3).	
Background References	<ol style="list-style-type: none"> 1. Johnson, G.V. and Stoothoff, W.H. (2004) <i>J Cell Sci</i> 117, 5721-9. 2. Hanger, D.P. et al. (1998) <i>J Neurochem</i> 71, 2465-76. 3. Bramblett, G.T. et al. (1993) <i>Neuron</i> 10, 1089-99. 	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	W: Western Blotting
Cross-Reactivity Key	M: Mouse R: Rat
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