

## Product Data Sheet: Phospho-Tau (T181)

Cat. No: MAB-94237
Conjugate: Unconjugated

Size: 100 ug

Clone: D9F4G

Concentration: 1mg/ml

Host: Rb

Isotype: IgG
Reactivity: Hu

Western blotting 1:1000 Immunohistochemistry (Paraffin) 1:100† Unmasking buffer: Citrate †Optimal IHC dilutions determined using SignalStain® Boost IHC

Detection Reagent.

Molecular Weight: 50-80 kDa

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Thr181 of human Tau

protein.

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 (1,2). Phosphorylation decreases the ability of tau to bind to microtubules. Neurofibrillary tangles are a major hallmark of Alzheimer's disease; these tangles are bundles of paired helical filaments

**Background:** 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). The cerebrospinal fluid concentration of Tau phosphorylated at Thr181 has been proposed to be a biomarker for the study of neurodegenerative disorders (4). Phospho-Tau (Thr181) (D9F4G) Rabbit mAb recognizes endogenous levels of Tau protein only when

phosphorylated at Thr181

Form: liquid

Buffer: 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.

**Storage:** Store at -20°C. Avoid freeze / thaw cycles.

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