

# Tau(phospho-Ser416) Antibody

Catalog No: #11570

Package Size: #11570-1 50ul #11570-2 100ul

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## Description

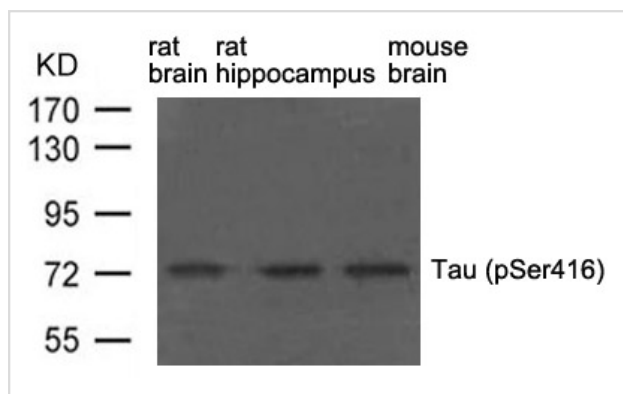
|                       |   |
|-----------------------|---|
| Product Name          | Tau(phospho-Ser416) Antibody  |
| Host Species          | Rabbit  |
| Clonality             | Polyclonal  |
| Purification          | Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates.<br>Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatography using non-phosphopeptide. |
| Applications          | WB  |
| Species Reactivity    | Hu Rt Ms  |
| Specificity           | The antibody detects endogenous levels of Tau only when phosphorylated at serine 416.   |
| Immunogen Type        | Peptide-KLH   |
| Immunogen Description | Peptide sequence around phosphorylation site of serine 416 (T-G-S(p)-I-D) derived from Human Tau.   |
| Target Name           | Tau   |
| Modification          | Phospho   |
| Other Names           | MAPT; MTAPT; MTBT1; Neurofibrillary tangle protein; PHF-tau   |
| Accession No.         | Swiss-Prot: P10636NCBI Protein: NP_001116538.1  |
| Uniprot               | P10636  |
| GeneID                | 4137;   |
| Concentration         | 1.0mg/ml  |
| Formulation           | Supplied at 1.0mg/mL in phosphate buffered saline (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.  |
| Storage               | Store at -20°C for long term preservation (recommended). Store at 4°C for short term use.   |

## Application Details

Predicted MW: 48 62 78kd

Western blotting: 1:500~1:1000

## Images



Western blot analysis of extract from rat brain, rat hippocampus and mouse brain using Tau(phospho-Ser416) Antibody #11570.

## 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 (1-2). 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 (1,3).

Timm T, et al. (2003) EMBO J; 22(19): 5090-5101.

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Note: This product is for in vitro research use only