

### 35-1338: Polyclonal Antibody to Tau (phospho-Ser416)

<b>Clonality :</b>	Polyclonal
<b>Application :</b>	WB
<b>Reactivity :</b>	Rat,Mouse,Human
<b>Gene :</b>	MAPT
<b>Gene ID :</b>	4137
<b>Uniprot ID :</b>	P10636
<b>Format :</b>	Purified
<b>Alternative Name :</b>	MAPT, MTAPT, MTBT1, Neurofibrillary tangle protein, PHF-tau
<b>Isotype :</b>	Rabbit IgG
<b>Immunogen Information :</b>	Peptide sequence around phosphorylation site of serine 416 (T-G-S(p)-I-D) derived from Human Tau.

#### Description

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.

#### Product Info

<b>Amount :</b>	50 µl / 100 µl
<b>Content :</b>	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.
<b>Storage condition :</b>	Store the antibody at 4°C, stable for 6 months. For long-term storage, store at -20°C. Avoid repeated freeze and thaw cycles.

#### Application Note

Predicted MW: 48 62 78kd, Western blotting: 1:500~1:1000

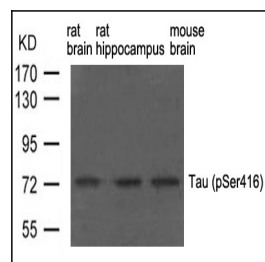


Figure 1: Western blot analysis of extract from rat brain, rat hippocampus and mouse brain using Tau(phospho-Ser416) Antibody 35-1338 .