

Tau (phospho-Ser396) Polyclonal Antibody

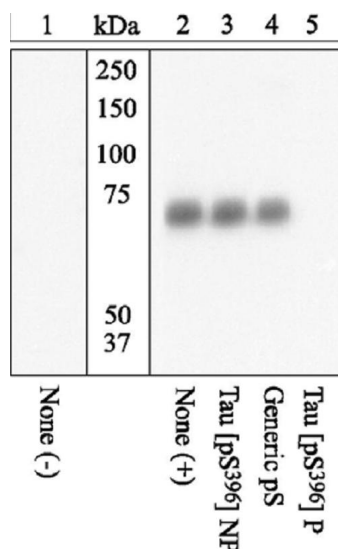
Product Specifications	
Catalog Number:	KAP-MA308
Host:	Rabbit
Species Reactivity:	Human
Applications:	WB: 1:1,000 (ECL) <i>The optimal dilution for a specific application must be determined by the investigator</i>
Predicted m.w:	45-60 kDa
Concentration:	See product label
Purification:	Peptide Affinity
Format:	Dulbecco's PBS (without Mg ²⁺ and Ca ²⁺), pH 7.3, 1.0 mg/mL, BSA, 50% glycerol, 0.05% sodium azide
Storage:	Store at -20°C <i>Shipping conditions may differ from the recommended storage temperature</i>
Immunogen:	Synthetic phospho-peptide derived from the sequence of human Tau; sequence identical with mouse, rat, monkey, baboon, cow and goat
Related Products :	
SAB-300	Goat anti-Rabbit IgG Polyclonal Antibody, HRP Conjugate
KAP-MA306	Tau (phospho-Ser262) Polyclonal Antibody
KAM-MA305	Tau Monoclonal Antibody (T1)
900-123	GSK-3β (phospho) EIA Kit
905-679-100	GSK-3β Polyclonal Antibody
KAS-PK017	PKA (CT) Polyclonal Antibody

Background:

Tau, a neuronal microtubule-associated protein found predominantly in axons, promotes tubulin polymerization and stabilizes microtubules. In its hyperphosphorylated form, Tau provides the major component of paired helical filaments (PHF), the building block of neurofibrillary lesions in Alzheimer's disease (AD) brain¹⁻⁵. Hyperphosphorylated Tau also exists in neurofibrillary lesions in a range of other central nervous system disorders. Hyperphosphorylation impairs the microtubule binding function of Tau, resulting in the destabilization of microtubules in AD brains and ultimately leading to the degeneration of the affected neurons. Numerous serine/threonine kinases, including GSK-3β, protein kinase A (PKA), cyclin-dependent kinase 5 (cdk5) and casein kinase II (CK2), phosphorylate Tau^{3,5}. Serine 396 is phosphorylated by GSK-3β and cdk5 *in vitro* and *in vivo*.

References:

1. Jämsä, A., *et al.* (2004) *Biochem Biophys Res Comm.* **319**, 993-1000.
2. Augustinack, J.C., *et al.* (2002) *Acta Neuropathol.* **103**, 26-35.
3. Liu, F., *et al.* (2002) *FEBS Lett.* **530**, 209-214.
4. Liu, F., *et al.* (2002) *FEBS Lett.* **512**, 101-106.
5. Alonso, A.D., *et al.* (2001) *J Biol Chem.* **276**, 37967-37973.



Human recombinant tau added to background extracts left untreated (1) or treated with GSK-3β (2-5) were resolved by SDS-PAGE on a 10% polyacrylamide gel and transferred to PVDF. Membranes were blocked with a 5% BSA-TBST buffer for one hour at room temperature, then were incubated with Tau (phospho-Ser396) Polyclonal Antibody in a 1% BSA-TBST buffer for two hours at room temperature, following prior incubation with: no peptide (1,2), the non-phosphopeptide corresponding to the immunogen (3), a generic phosphoserine containing peptide (4), or the phosphopeptide immunogen (5).

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