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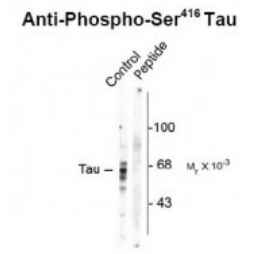
Tau (phospho Ser416) Antibody

CATALOG NUMBER: 50-270



Western blot of rat brain homogenate showing specific immunolabeling of the ~59, 65, 68k Tau isoforms phosphorylated at Ser416 (control). Immunolabeling is blocked by preadsorption with the phospho-peptide used as antigen (Peptide) but not by the corresponding dephospho-peptide (not shown).

Specifications

SPECIES REACTIVITY:	Bovine, Chicken, Human, Mouse, Rat
TESTED APPLICATIONS:	WB
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.
PREDICTED MOLECULAR WEIGHT:	59/65/68
SPECIFICITY:	Specific for ~59, 65, 68k tau protein phosphorylated at Ser416.
IMMUNOGEN:	Phosphopeptide corresponding to amino acid residues surrounding the phospho-Ser416 of rat tau.
HOST SPECIES:	Rabbit

Properties

PURIFICATION:	Affinity Purified
PHYSICAL STATE:	Liquid
BUFFER:	100 uL in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 ug per mL BSA and 50% glycerol.
STORAGE CONDITIONS:	Tau (Ser416) antibody can be stored at -20˚C and is stable at -20˚C for at least 1 year.
CLONALITY:	Polyclonal
CONJUGATE:	Unconjugated

Additional Info

ALTERNATE NAMES:	pTau, Mtapt, RNPTAU, Tau, Neurofibrillary tangle protein, PHF-tau
ACCESSION NO.:	P19332
PROTEIN GI NO.:	13432197
OFFICIAL SYMBOL:	Mapt

GENE ID:	29477

Background

BACKGROUND:	Tau is a key microtubule-associated protein that plays an important role in the formation of microtubules in axons (Binder et al. 1985). Six tau isoforms have been identified as products of a single gene produced by alternative mRNA splicing (Goedert 1990). Tau mutations have been implicated in many neurodegenerative disorders such as Alzheimer's disease (AD), Pick's disease and progressive supranuclear palsy. It has been well documented that hyperphosphorylated tau is a major component of paired helical filaments in AD brain (Lee 1995). Serine 416 has been demonstrated to be a major phosphorylation site in vitro by CaM kinase II (Steiner at al. 1990).
REFERENCES:	1) Binder LI, Frankfurter A, Rebhun LI (1985) The distribution of tau in the mammalian central nervous system. J Cell Bio Oct; 101(4):1371-8.
	2) Lee V.M.Y. (1995) Disruption of the cytoskeleton in Alzheimer's disease. Curr. Opin. Neurobiol. 5, 663-668.
	3) Goedert M. and Jakes R. (1990) Expression of separate isoforms of human tau protein: correlation with the tau pattern in brain and effects on tubulin polymerization. EMBO J 9, 4225-4230.
	4) Steiner B., Mandelkow E.M., Biernat J. et al. (1990) Phosphorylation of microtubule-associated protein tau: identification of the site for Ca2+-calmodulin dependent kinase and relationship with tau phosphorylation in Alzheimer tangles. EMBO J. 9, 3539-3544.

FOR RESEARCH USE ONLY

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