

Phospho Ser416 Tau Antibody
Affinity purified rabbit polyclonal antibody
Catalog # AN1156

Specification

Phospho Ser416 Tau Antibody - Product Information

Application	WB
Primary Accession	P19332
Reactivity	Rat
Predicted	Bovine, Human, Mouse, Monkey
Host	Rabbit
Clonality	polyclonal
Calculated MW	59/65/68 KDa

Phospho Ser416 Tau Antibody - Additional Information

Gene ID	69329
Gene Name	MAPT

Other Names

Microtubule-associated protein tau, Neurofibrillary tangle protein, Paired helical filament-tau, PHF-tau, Mapt, Mtapt, Tau

Target/Specificity

Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser416 conjugated to KLH.

Dilution

WB~~ 1:1000

Format

Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephospho-peptide affinity columns.

Antibody Specificity

Specific for ~59, 65, 68k tau protein phosphorylated at Ser416.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Phospho Ser416 Tau Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping

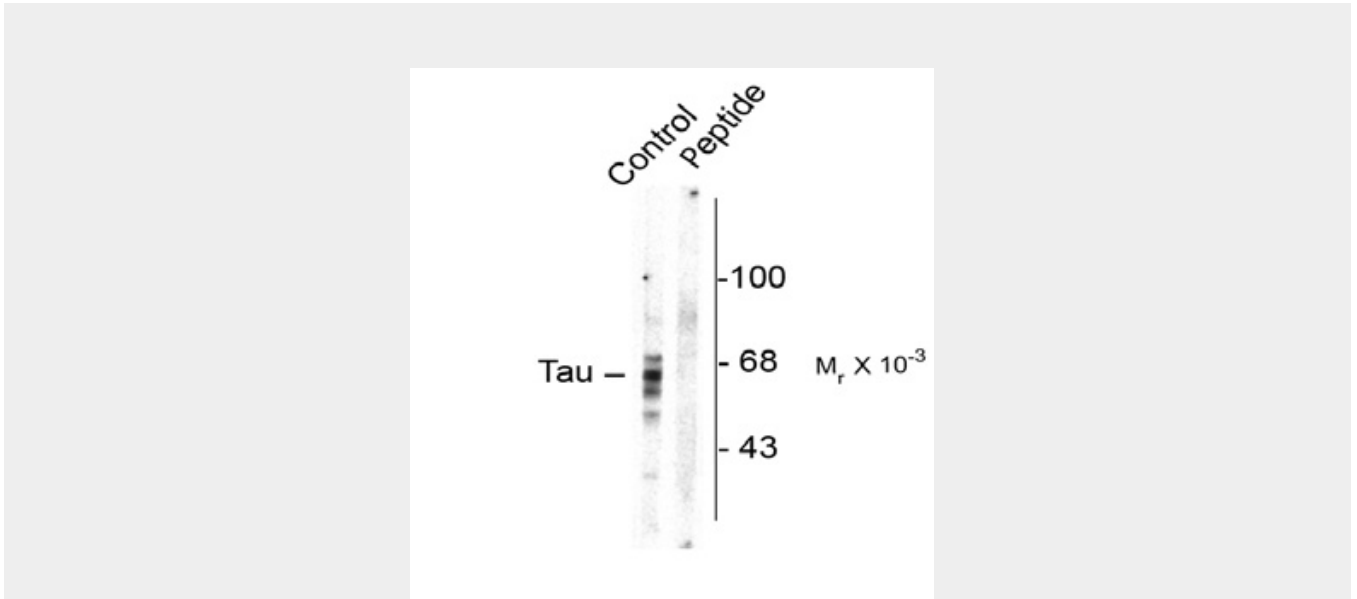
Blue Ice

Phospho Ser416 Tau Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Phospho Ser416 Tau Antibody - Images



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).

Phospho Ser416 Tau Antibody - 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 et al. 1990).

Phospho Ser416 Tau Antibody - References

- 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.
- Lee V.M.Y. (1995) Disruption of the cytoskeleton in Alzheimer's disease. *Curr. Opin. Neurobiol.* 5, 663-668.
- 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.
- 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.