

## Rabbit (polyclonal) Anti-Tau [pS422] Phosphospecific Antibody, Unconjugated

Store at 2°C to 8°C (short-term), or -20°C (long-term)

**Catalog Number:** 44764G

**Pub. No.** MAN0009951 **Rev.** 1.00

**Clonality:** Polyclonal

**Quantity:** 10 mini-blot size

**Volume:** 100 µL

**Host/Class:** Rabbit IgG

**Reactivity:** Human Tau [pS<sup>422</sup>]

**Predicted Reactivity:** Human, Mouse, Rat

### Product description

Tau is a neuronal microtubule-associated protein found predominantly in axons. It functions to promote tubulin polymerization and stabilize microtubules. In its hyperphosphorylated form, Tau is the major component of paired helical filaments (PHF), and the microtubule binding function of the protein is impaired, resulting in destabilization of microtubules. Various serine/threonine kinases, including GSK-3β, protein kinase A (PKA), cyclin-dependent kinase 5 (cdk5) and casein kinase II (CK2) can phosphorylate Tau. Serine 422 can be phosphorylated by members of the MAP kinase (MAPK) family.

### Product specifications

<b>Immunogen:</b>	Chemically synthesized phosphopeptide derived from a region of human Tau containing serine 422
<b>Purification:</b>	Antibody negatively preadsorbed using a non-phosphopeptide then purified by epitope-specific affinity chromatography
<b>Lot:</b>	See product label

### Product applications

The antibody has been used in western blotting. Other applications may work but have not been tested.

Because conditions may vary, it is recommended that each investigator determine the optimal amount of antibody to be used for each application.

### Storage and handling

Store the antibody at 2°C to 8°C for up to 1 week, or apportion into working aliquots and keep at -20°C for long-term storage. Avoid repeated freezing and thawing.

### Positive controls used

Recombinant human Tau +/- MAP kinase.

### Stability

When stored as instructed, expires one year from date of receipt unless otherwise indicated on the Certificate of Analysis.

### Storage buffer

Dulbecco's phosphate buffered saline (without Mg<sup>2+</sup> and Ca<sup>2+</sup>), pH 7.3 (+/- 0.1), 50% glycerol with 1.0 mg/mL BSA (IgG, protease free) as a carrier, and 0.05% sodium azide.



**CAUTION!** Sodium azide is extremely toxic and may react with lead and copper plumbing to form highly explosive metal azides. Properly dispose of solutions containing sodium azide. Read the Safety Data Sheet (SDS) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves. SDSs are available at [www.lifetechnologies.com/support](http://www.lifetechnologies.com/support).

### References

1. Augustinack, J.C., et al. (2002) Specific tau phosphorylation sites correlate with severity of neuronal cytopathology in Alzheimer's disease. *Acta Neuropathol.* 103:26-35.
2. Kins, S., et al. (2001) Reduced protein phosphatase 2A activity induces hyperphosphorylation and altered compartmentalization of tau in transgenic mice. *J. Biol. Sci.* 276(41):38193-200.
3. Gong, C.X., et al. (2000) Phosphorylation of microtubule-associated protein tau is regulated by protein phosphatase 2A in mammalian brain. Implications for neurofibrillary degeneration in Alzheimer's disease. *J. Biol. Chem.* 275(8):5535-5544.
4. Bussiere, T., et al. (1999) Phosphorylated serine 422 on tau proteins is a pathological epitope found in several diseases with neurofibrillary degeneration. *Acta Neuropathol. (Berl)*. 97(3):221-30.
5. Reynolds, C.H., et al. (1997) Stress-activated protein kinase/c-jun N-terminal kinase phosphorylates tau protein. *J. Neurochem.* 68(4):1736-44.

## Related products

Product Name	Quantity	Cat. No.
Tau [pT <sup>212</sup> ] Polyclonal Antibody, Rabbit	10 blots	44740G
Tau [pT <sup>214</sup> ] Polyclonal Antibody, Rabbit	10 blots	44742G
Tau [pT <sup>217</sup> ] Rabbit Polyclonal Antibody	50 µg	44744
Tau [pT <sup>409</sup> ] Rabbit Polyclonal Antibody	10 blots	44760G
Tau [pSpS <sup>199/202</sup> ] Polyclonal Antibody, Rabbit	10 blots	44768G
GSK-3β [pY <sup>216</sup> ]/GSK-3α [pY <sup>279</sup> ] Polyclonal Antibody, Rabbit	10 blots	44604G
ERK1/2 [pTpY <sup>185/187</sup> ] Polyclonal Antibody, Rabbit	10 blots	44680G
p38 [pTpY <sup>180/182</sup> ] Polyclonal Antibody, Rabbit	10 blots	44684G
TAU [pS <sup>199</sup> ] Human ELISA Kit	96 assays	KHB7041
TAU [pS <sup>396</sup> ] Human ELISA Kit	96 assays	KHB7031

## Product Documentation

To obtain a Certificate of Analysis or Safety Data Sheets (SDSs), visit [www.lifetechnologies.com/support](http://www.lifetechnologies.com/support).








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## Explanation of symbols

Symbol	Description	Symbol	Description	Symbol	Description
	Manufacturer		Catalog number		Batch code
	Use by		Temperature limitation		
	Consult instructions for use		Caution, consult accompanying documents		

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