

Lot XXXXX

MATERIAL DATA SHEET

Tau (2N4R), Δ306-311, *human recombinant* Cat. # SP-500

Tau is a microtubule-associated protein expressed primarily in neurons. Carboxy-terminal domains of Tau associate with and stabilize microtubule structure, while other domains bind to the plasma membrane. Abnormal Tau phosphorylation can result in the self-assembly of tangles of paired helical and/or straight filaments, which are involved in the pathogenesis of Alzheimer's disease and other neurodegenerative diseases. Properly folded Tau is highly soluble, but when the protein becomes misfolded it forms insoluble aggregates that can damage cytoplasmic functions, interfere with axonal transport and ultimately lead to cell death. There are multiple isoforms of Tau— this isoform is known as “2N4R,” “Isoform Tau-F,” or “Tau 441” and is referenced in UniProt as P10636-8. Amino acid's 306-311 (VQIVYK) are missing in this deletion mutant. This recombinant protein is untagged.

Product Information

Quantity:	100 µg
Stock:	2.3 mg/ml (50 µM) in PBS pH 7.4
MW:	45 kDa
Purity:	> 95 % by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie Blue Stain.

Use & Storage

Use:	Concentrations for <i>in vitro</i> assays will depend on experimental conditions and detection methods.
Storage:	Store at -80°C. Avoid multiple freeze/thaw cycles.

Literature

References:	Billingsley M.L. & Kincaid R.L. (1997). <u>Biochem. J.</u> 323 : 577
	Bloom G.S. (2014) <u>JAMA Neurol.</u> 71 : 505
	Cripps D. <i>et al.</i> (2006) <u>J. Biol. Chem.</u> 281 : 10825
	Harada A. <i>et al.</i> (1994) <u>Nature</u> 369 : 488
	Lei P. <i>et al.</i> (2010) <u>Int. J Biochem Cell Biol.</u> 42 : 1775

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