Recombinant Human Tau 383 (0N4R)

Catalog Number: SP-499

DESCRIPTION

Source	*E. coli*-derived human Tau protein Met1 - Leu383 Accession # NP_058518.1
Predicted Molecular Mass	40 kDa

SPECIFICATIONS

Activity	Concentrations for *in vitro* assays will depend on experimental conditions and detection methods.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain.
Formulation	Supplied as a solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Shipping	The product is shipped with dry ice or equivalent. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 6 months from date of receipt, -70 °C as supplied. • 3 months, -70 °C under sterile conditions after opening.

BACKGROUND

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 may 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 forms of Tau. The product is a 383 amino acid isoform known as "0N4R," "Isoform Tau-D" or "Tau 383" and is referenced in UniProt as P10636-6.

References:

1. Billingsley M.L. & Kincaid R.L. (1997) Biochem. J. **323**:577.
2. Bloom G.S. (2014) JAMA Neurol. **71**:505.
3. Cripps D. *et al.* (2006) J. Biol. Chem. **281**:10825.
4. Harada A. *et al.* (1994) Nature **369**:488.
5. Lei P. *et al.* (2010) Int. J. Biochem. Cell Biol. **42**:775.

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