

Tau-441, DYRK1A-phosphorylated & Biotinylated

Catalog # **T08-50RNB**

Lot # V2577-8

Product Description

Recombinant human tag-free Tau-441 was co-expressed with DYRK1A in *E. coli* cells, phosphorylated by DYRK1A *in vivo* and *in vitro*, then the purified protein was biotinylated prior to the final chromatography purification. The protein accession number is [P10636-8](#).

Gene Aliases

Tau-F, (N2R4), Tau-4, MAPT, MSTD; PPND; DDPAC; MAPTL; MTBT1; MTBT2; FTDP-17; FLJ31424; MGC138549

Formulation

Recombinant protein stored in the buffer: 50mM Na₂HPO₄ pH 7.5 and 150mM NaCl.

Storage and Stability

Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

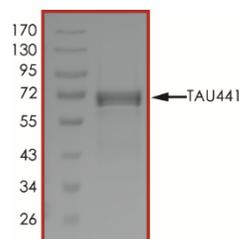
Scientific Background

Tau-441 or Tau-F is a member of the Tau family of proteins which function to stabilize the microtubules by binding to them. Tau proteins are subject to phosphorylation and this phenomenon regulates the association of the Tau protein with the microtubules (1). Deposits of Alzheimer's disease AD-associated proteins, such as hyperphosphorylated Tau, as well as other shared misfolded proteins, such as, β-amyloid precursor protein (βAPP), ubiquitin, and various chaperones and protein kinases are thought to play a pathologic role in the cognitive decline and muscular failure. Malfunctioning of Tau proteins is associated with microtubules disintegration and collapsing of the neuronal transport system (2).

References

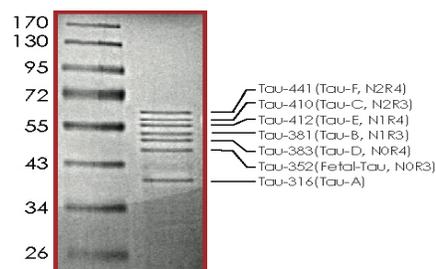
1. Zilka, N., et al. Truncated tau from sporadic Alzheimer's disease suffices to drive neurofibrillary degeneration *in vivo*. *FEBS Lett.* 2006; 508: 3582-3588.
2. Rial, A. et al: Calcium Dyshomeostasis in β-Amyloid and Tau-bearing Skeletal Myotubes. *J. Biol. Chem.*, 2004; 279: 3524-53532.

Purity



The purity of phosphorylated and biotinylated Tau-441 protein was determined to be **>95%** by densitometry.
Approx. MW **68~72 kDa**.

Seven Tau Proteins



SDS-PAGE image of Tau Proteins. The seven Tau isoform proteins from top to bottom are: Tau-441, Tau-410, Tau-412, Tau-381, Tau-383, Tau-352 and Tau-316.

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Human protein co-expressed with DYRK1A in *E. coli* cells

Catalog #	T08-50RNB
Lot #	V2577-8
Purity	>95%
Concentration	0.1 µg/µl
Stability	1yr at -70°C from date of shipment
Storage & Shipping	Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on dry ice.

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