

## Tau-441 (R406W) Protein

Human recombinant protein expressed in *E. coli* cells

**Catalog # T08-56MN**

Lot # O929-4

### Product Description

Recombinant human tag-free Tau-441 (R406W) was expressed in *E. coli* cells. 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 50mM Tris-HCl, pH 7.5, 150mM NaCl, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.

### 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.

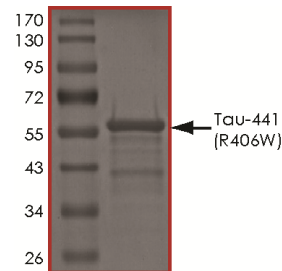
### Scientific Background

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,  $\beta$ -amyloid precursor protein ( $\beta$ APP), 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

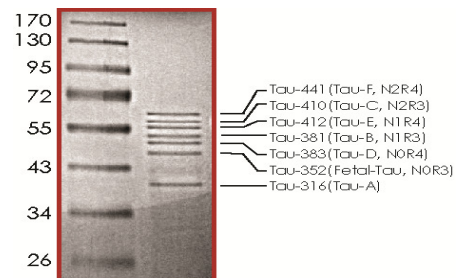
1. Zilka, N., et al. Truncated tau from sporadic Alzheimer's disease suffices to drive neurofibrillary degeneration in vivo. *FEBS Lett.* 2006; 508: 3582-3588.
2. Rial, A. et al: Calcium Dyshomeostasis in  $\beta$ -Amyloid and Tau-bearing Skeletal Myotubes. *J. Biol. Chem.*, 2004; 279: 3524-53532.

### Purity



The purity of Tau-441 (R406W) was determined to be **>90%** by densitometry. Approx. MW **62kDa** (**45.8kDa** by MW calculation).

### 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.

## Tau-441 (R406W) Protein

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Catalog Number	T08-56MN
Specific Lot Number	O929-4
Purity	>90%
Concentration	0.2 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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