

## Tau-410 Protein

Full-length recombinant protein expressed in E. coli cells

**Catalog # T06-54N**

Lot # W3278-8

### Product Description

Recombinant full-length human tag-free Tau-410 was expressed in E. coli cells. The protein accession number is [P10636-5](#).

### Gene Aliases

Tau-C, (N2R3), Tau-3, 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  $-70^{\circ}\text{C}$ . 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.

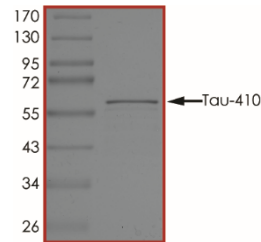
### Scientific Background

Tau-410 or Tau-C 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

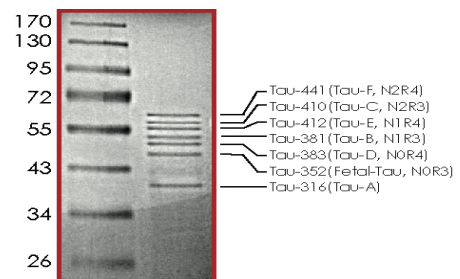
- Zilka, N., et al., Truncated tau from sporadic Alzheimer's disease suffices to drive neurofibrillary degeneration in vivo. *FEBS Lett.* 2006; 508: 3582-3588.
- Rial, A. et al: Calcium Dyshomeostasis in  $\beta$ -Amyloid and Tau-bearing Skeletal Myotubes. *J. Biol. Chem.*, 2004; 279: 3524-53532.

### Purity



The purity of Tau-410 was determined to be **>90%** by densitometry. Approx. MW **61kDa** (42.6kDa 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-410 Protein

Full-length recombinant protein expressed in E. coli cells

Catalog #	T06-54N
Lot #	W3278-8
Purity	>90%
Concentration	0.2 µg/µl
Stability	1yr at $-70^{\circ}\text{C}$ from date of shipment
Storage & Shipping	Store product at $-70^{\circ}\text{C}$ . 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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**FOR IN VITRO RESEARCH PURPOSES ONLY. NOT INTENDED FOR USE IN HUMAN OR ANIMALS.**

# MATERIAL SAFETY DATA SHEET

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## Article 1 - Product Identification and Use

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**Product Name: Tau-410 Protein**

**Catalog # T06-54N**

*This product is sold only for research use by qualified laboratory personnel, and is not to be used as a drug, medical device, food additive, cosmetic, nor household chemical. It is not to be used in diagnostic, therapeutic, consumer, agricultural, nor pesticidal applications.*

Manufacturer's Name: SignalChem Pharmaceuticals Inc.  
Street Address: 550-5600 Parkwood Way  
City, Prov. Postal Code: Richmond, BC, V6V 2M2  
Fax: 604-232-4601  
EMERGENCY PHONE: 604-232-4600

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## Article 2 - Hazardous Ingredients

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NOT AVAILABLE. We are not aware of any hazards associated with this product or its ingredients, but the chemical, physical, and toxicological properties of this product have not been investigated thoroughly. Observe normal laboratory precautions.

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## Article 3 - Physical Data

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This product consists of purified protein in Tris-HCl buffer shipped on dry ice. The physical properties of this product have not been investigated thoroughly.

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## Article 4 - Fire and Explosion Hazard

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NOT APPLICABLE

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## Article 5 - Reactivity Data

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NOT APPLICABLE

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## Article 6 - Toxicologically Data

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May be harmful by inhalation, ingestion, or skin absorption. The toxicological properties of this product have not been investigated thoroughly. Exercise due caution.

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## Article 7 - Preventative Measures

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Wear chemical safety goggles and compatible chemical-resistant gloves. Avoid inhalation, contact with eyes, skin or clothing.

\*\*\*\*MULTIPLE COMPONENT SPILL OR LEAK PROCEDURES\*\*\*\*

- Wear protective equipment.
  - Absorb on sand or vermiculite and place in closed containers for disposal.
  - Observe all federal, state and local environmental regulations.
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## Article 8 - First Aid Measures

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- If swallowed, wash out mouth with water, provided person is conscious. Call a physician.
  - In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If a rash or other irritation develops, call a physician.
  - If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
  - In case of eye contact, flush with copious amounts of water for at least 15 minutes while separating the eyelids with fingers. Call a physician.
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## Article 9 - Preparation

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Prepared By: Jun Yan

Phone #: 1-866-954-6273

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. SignalChem shall not be held liable for any damage resulting from handling or from contact with the above product. See the Technical Specification, Packing Slip, Invoice, and Product Catalog for additional terms and conditions of sale.

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