

# Recombinant Human Microtubule-associated protein tau/MAPT Protein

Catalog No.: RP01392 Recombinant

## **Sequence Information**

**Species Gene ID Swiss Prot** Human 4137 P10636-8

Tags

C-His

**Synonyms** 

DDPAC; FTDP-17; MAPTL; MSTD; MTBT1; MTBT2; PPND; PPP1R103;

TAU;MAPT;FTDP-17;MAPTL;MSTD;MTBT1; MTBT2;PPND;PPP1R103;TAU;Tau; DDPAC; microtubule-associated protein

tau

## **Product Information**

Source

**Purification** 

HEK293 cells  $\geq$  95 % as determined by SDS-PAGE; $\geq$  90 % as

determined by HPLC.

111 EX

Calculated MW Observed MW

46.69 kDa 65-80 kDa

#### **Endotoxin**

< 0.1 EU/ $\mu$ g of the protein by LAL method.

## **Formulation**

Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4.

## Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact

400-999-6126

## **Background**

MAPT (microtubule-associated protein tau) can produce tau proteins. Tau proteins are proteins that stabilize microtubules. They are abundant in neurons of the central nervous system and are less common elsewhere, but are also expressed at very low levels in CNS astrocytes and oligodendrocytes. When tau proteins are defective, and no longer stabilize microtubules properly, they can result in dementias such as Alzheimer"s disease. Tau protein is a highly soluble microtubule-associated protein (MAP). In humans, these proteins are mostly found in neurons compared to nonneuronal cells. One of tau"s main functions is to modulate the stability of axonal microtubules. Other nervous system MAPs may perform similar functions, as suggested by tau knockout mice, who did not show abnormalities in brain development - possibly because of compensation in tau deficiency by other MAPs.Tau-F is known as "2N4R," "Isoform Tau-F," "Tau-4" or "Tau 441", which consisting of 441 amino acid. Tau-F is a potential therapeutic target for pathogenesis.

## **Basic Information**

## Description

Recombinant Human Microtubule-associated protein tau/MAPT Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Met1-Leu441) of human Tau-F/MAPT-F (Accession  $\#NP_005901.2$ ) fused with a  $6\times$ His tag at the C-terminus.

## **Bio-Activity**

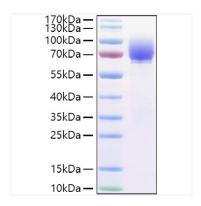
#### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

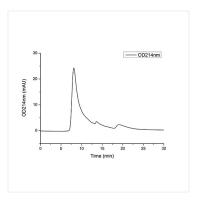
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

## **Validation Data**



Recombinant Human Microtubule-associated protein tau/MAPT Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



The purity of Human Tau-F/MAPT-F Protein (Cat.RP01392) was greater than 90% as determined by SEC-HPLC.