

# 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	≥ 95 % as determined by SDS-PAGE; ≥ 90 % as determined by HPLC.

Calculated MW	Observed MW
46.69 kDa	65-80 kDa

### Endotoxin

< 0.1 EU/μg 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 stabilizer (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 non-neuronal 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×His tag at the C-terminus.

### Bio-Activity

### Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

### 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.

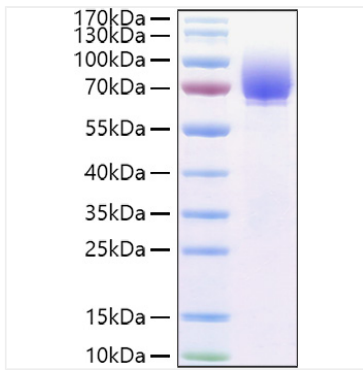
### Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

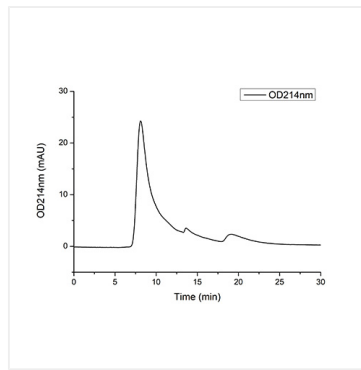


## Validation Data

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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.