Human MAPT / Tau Protein (His Tag)

Catalog Number: **10058-H07E**

General Information

Gene Name Synonym:

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

Protein Construction:

A DNA sequence encoding the mature form of human MAPT (NP_058525.1) (Ala2-Leu352) was expressed with a polyhistide tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: His

Molecular Mass:

The recombinant human MAPT consists of 367 amino acids and predicts a molecular mass of 38.7 KDa. It migrates as an approximately 40-50 KDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

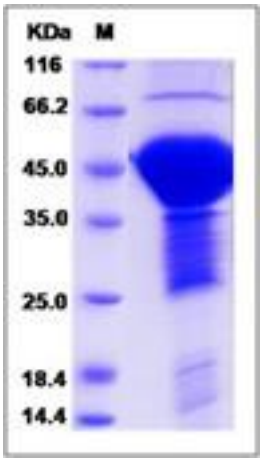
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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.

References

1.Harada A, *et al.* (1994) Altered microtubule organization in small-calibre axons of mice lacking tau protein. Nature. 369(6480):488-91. 2.Weingarten MD, *et al.* (1975) A protein factor essential for microtubule assembly. Proc Natl Acad Sci. 72(5):1858-62. 3.Goedert M, *et al.* (1989) Multiple isoforms of human microtubule-associated protein tau: sequences and localization in neurofibrillary tangles of Alzheimer's disease. Neuron. 3(4): 519-26.