

Tau/MAPT Protein, *Macaca mulatta* (HEK293, His)

Cat. No.:	HY-P700423
Synonyms:	MAPT; TAU; MSTD; PPND; DDPAC; MAPTL; MTBT1; MTBT2; FTDP-17; microtubule-associated protein tau; microtubule-associated protein tau; PHF-tau; paired helical filament-tau; neurofibrillary tangle protein; microtubule-associated protein tau, isoform 4; G protein beta1/gamma2 subunit-interacting factor 1
Species:	Rhesus Macaque
Source:	HEK293
Accession:	P57786 (A2-L459)
Gene ID:	574327
Molecular Weight:	50.6 kDa

PROPERTIES

AA Sequence	<pre> A E P R Q E F D V M E D H A G T Y G L G D R K D Q E G Y T M L Q D Q E G D T D A G L K E S P L Q T P A E D G S E E L G S E T S D A K S T P T A E D V T A P L V D E R A P G E Q A A A Q P H M E I P E G T T A E E A G I G D T P S L E D E A A G H V T Q A R M V S K S K D G T G S D D K K A K G A D G K T K I A T P R G A A P P G Q K G Q A N A T R I P A K T P P A P K T P P S S A T K Q V Q R K P P P A E P T S E R G E P P K S G D R S G Y S S P G S P G T P G S R S R T P S L P T P P A R E P K K V A V V R T P P K S P S S A K S R L Q T A P V P M P D L K N V K S K I G S T E N L K H Q P G G G K V Q I I N K K L D L S N V Q S K C G S K D N I K H V P G G G S V Q I V Y K P V D L S K V T S K C G S L G N I H H K P G G G Q V E V K S E K L D F K D R V Q S K I G S L D N I T H V P G G G N K K I E T H K L T F R E N A K A K T D H G A E I V Y K S P V V S G D T S P R H L S N V S S T G S I D M V D S P Q L A T L A D E V S A S L A K Q G L </pre>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

Tau/MAPT Protein plays a crucial role in cellular dynamics by promoting microtubule assembly and stability, contributing to the establishment and maintenance of neuronal polarity. Its structural organization reveals a functional duality, with the C-terminus binding to axonal microtubules and the N-terminus engaging neural plasma membrane components. This arrangement suggests that tau serves as a linker protein, bridging the connection between microtubules and the plasma membrane in neurons. The localization of tau within the neuronal cell dictates axonal polarity, specifically in the region defined by the centrosome. Notably, the short isoforms offer cytoskeletal plasticity, while the longer isoforms likely play a preferential role in stabilization. Tau engages in a network of interactions with various proteins, including MARK1, MARK2, MARK3, MARK4, SQSTM1, PSMC2, FKBP4, CSNK1D, SGK1, PIN1, and LRRK2, illustrating its multifaceted involvement in cellular processes. Additionally, its interaction with LRP1, leading to endocytosis, highlights the intricate regulatory mechanisms governing tau's functional versatility.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA