



Human Anti-Human MAPT (Tilavonemab) Monoclonal antibody, clone Tilavonemab (CABT-CS589)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	Tau
Target	Tau
Isotype	IgG4
Source/Host	Human
Species Reactivity	Human
Clone	Tilavonemab
Purification	Protein A
Conjugate	unconjugated
Applications	ELISA
Format	Liquid
Size	1 mg
Buffer	PBS, pH 7.4. Contains no stabilizers or preservatives
Preservative	None
Storage	2 weeks, 2-8°C under sterile conditions after reconstitution. Avoid repeated freeze-thaw. -80°C for a long-term storage.

BACKGROUND

Introduction

Tau is a microtubule-associated phosphoprotein (MAP), localized in neuronal axons. It promotes tubulin polymerization and stabilizes microtubules. Tau proteins constitute a family of six isoforms which range from 352 to 441 amino acids. The tau variants differ from each other by the presence of either three or four repeat-regions in the carboxy-terminal part of the molecule and the absence or presence of one or two inserts in the amino-terminal part. Tau is hyperphosphorylated by ERK, GSK-3, TPKII and CDK5, at least thirty phosphorylation sites have been described, including Thr39, Ser46, Thr50, Thr69, Thr153, Thr175, Thr 181, Ser198, Ser199, Ser202, Thr205, Ser208, Ser210, Thr212, Ser214, Thr217, Thr231, Ser235, Ser237, Ser241, Ser262, Ser285, Ser305, Ser324, Ser352, Ser356, Ser396, Ser400, Thr403, Ser404, Ser409, Ser412, Ser413, Ser416 and Ser422. These sites are among the major abnormal phosphorylation sites of Tau. Phosphorylation on these sites reduces the ability of a given Tau species to promote microtubule self-assembly. Hyperphosphorylated Tau is the major protein of the paired helical filaments (PHFs), which make up the pathological neurofibrillary tangles of Alzheimer's disease (AD). The PHFs are also found in the lesions of other central nervous system disorders.

Keywords

Tau; MAPT; MAPTL; MGC1
