

Anti-human phospho-50 TAU mAb 15E3

Description:

Tau protein is a microtubule-associated protein mainly found in neurons, that regulates microtubule stability and axonal transport. It is classified as an intrinsically disordered protein, allowing it to adopt multiple conformations and interact with diverse cellular partners. Tau proteins contain numerous potential phosphorylation sites that regulate its conformational changes and interactions. In pathological states, especially neurodegenerative disorders, hyperphosphorylation arises, leading to aggregation into neurofibrillary tangles - a hallmark of tauopathies like Alzheimer's disease.

The clone 15E3 is a Monoclonal Mouse antibody against Human Phospho-Tau (Thr50), Microtubule-associated protein tau (MAPT) (Uniprot: B3KTM0).

The antibody is produced exclusively from hybridoma and purified through one-step purification with Protein-A affinity chromatography.

Product-ID:	INV4000040
Clone:	15E3
Immunogen:	Animals were immunized with Synthetic peptide LKESPLQT(Pi)TEDGS
Host:	Mouse
Clonality:	Monoclonal
Isotype:	IgG1k
Formulation:	Clear Liquid, PBS, pH 7.4
Concentration:	> 1.0 mg/ml
Purity:	> 95% by SDS-PAGE
Sizes available:	0.1 mg and 1.0 mg
Storage:	at - 20 °C (repeated thawing and freezing should be avoided)
Tested application(s):	ELISA, Western Blot, Immunohistochemistry

The product is for research use only and not for use in diagnostic or therapeutic procedures.

Literature:

[1] - Mark S. Forman, Virginia M.-Y. Lee, John Q. Trojanowski. New insights into genetic and molecular mechanisms of brain degeneration in tauopathies, *Journal of Chemical Neuroanatomy*, Volume 20, Issues 3–4, 2000, Pages 225-244, ISSN 0891-0618, [https://doi.org/10.1016/S0891-0618\(00\)00100-9](https://doi.org/10.1016/S0891-0618(00)00100-9).

[2] - Alonso A, Zaidi T, Novak M, Grundke-Iqbal I, Iqbal K. Hyperphosphorylation induces self-assembly of tau into tangles of paired helical filaments/straight filaments. *Proc Natl Acad Sci U S A*. 2001 Jun 5;98(12):6923-8. doi: 10.1073/pnas.121119298. Epub 2001 May 29. PMID: 11381127; PMCID: PMC34454.

[3] - Noble W, Hanger DP, Miller CC, Lovestone S. The importance of tau phosphorylation for neurodegenerative diseases. *Front Neurol*. 2013 Jul 1;4:83. doi: 10.3389/fneur.2013.00083. PMID: 23847585; PMCID: PMC3696910.

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