

Anti-human phospho-199 TAU mAb 1F3

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 1F3 is a Monoclonal Mouse antibody against Human Phospho-Tau (Ser199), 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:	INV4000033
Clone:	1F3
Immunogen:	Animals were immunized with Synthetic peptide SGYSS(Pi)PGSPGTPG
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.

References:

a. Schmitz M, Wulf K, Signore SC, Schulz-Schaeffer WJ, Kermer P, Bähr M, Wouters FS, Zafar S, Zerr I. Impact of the cellular prion protein on amyloid- β and 3PO-tau processing. *J Alzheimers Dis*. 2014;38(3):551-65. doi: 10.3233/JAD-130566. PMID: 24028865.

InVivo BioTech Services GmbH is certified to [ISO 9001](#) and [ISO 13485](#).

Anti-human phospho-199 TAU mAb 1F3 — Supplementary Data

Figure 1

Human PHF preparation was separated by SDS-PAGE and blotted on nitrocellulose. Antibody 1F3 was used for detection of P-199.

Bound antibody was detected using horseradish peroxidase conjugated goat anti-mouse IgG and ECL substrate solution.

Mab 1F3 reacted specifically with the phosphorylated human TAU but not with recombinant TAU441 (data not shown).

Analyses were kindly performed by group of Prof. Dr. Armand Perret-Liaudet (Hôpital Neurologique Laboratoire, Diagnostic Maladies à prions, Lyon, France).

