Anti-human phospho-231 TAU mAb 9D8

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 it´s 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 9D8 is a Monoclonal Mouse antibody against Human Phospho-Tau (Thr231), 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:	**INV4000038**
Clone:	9D8
Immunogen:	Animals were immunized with Synthetic peptide KKVAVVRT(Pi)PPKSPSS
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, Immunhistochemistry

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.

[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.

InVivo BioTech Services GmbH is certified to ISO 9001 and ISO 13485.

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— Supplementary Data

Figure 1

Brain homogenate from patients of braak stage of 5 and 3 for AD pathology, respectively (4 brain areas for each patients (F: frontal; P: parietal; O: occipital; C: cerebelum) and PHF preparation from healthy brain (PHF) were separated by SDS-PAGE and blotted on nitrocellulose membrane. NC membrane was incubated by 5 µg/ml of mab 9D8.
Bound antibody was detected using horseradish peroxidase conjugated goat anti-mouse IgG antibody and ECL staining. Mab 9D8 reacted specifically with the phosphorylated TAU and fragments of lower molecular weight in frontal and parietal areas of braak stage 5 AD patient.
Analyses were kindly performed by Seguin Jérémie (CBPE, Hôpitaux de Lyon, France).