

Purified anti-Tau Nitrated (Tyr18) Antibody (Previously Covance catalog# SIG-39436)

Catalog# / Size	829703 / 25 µL 829701 / 100 µL
Clone	Tau-nY18
Regulatory Status	RUO
Other Names	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
Previously	Covance Catalog# SIG-39436
Isotype	Mouse IgG2b, κ
Description	Tau proteins are microtubule-associated protein (MAPs) which are abundant in neurons of the central nervous system, but are also expressed at very low levels in CNS astrocytes and oligodendrocytes and elsewhere. One of tau's main functions is to modulate the stability of axonal microtubules. Tau is active primarily in the distal portions of axons providing microtubule stabilization as well as flexibility. Pathologies and dementias of the nervous system such as Alzheimer's disease feature tau proteins that have become defective and no longer stabilize microtubules properly. As a result, tau forms aggregates with specific structural properties referred to as Paired Helical Filaments (PHFs) that are a characteristic of many different types of dementias, known as tauopathies.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution; no preservatives or carrier proteins.
Preparation	The antibody was purified by affinity chromatography.
Concentration	1 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. Please note the storage condition for this antibody has been changed from -20°C to between 2°C and 8°C. You can also check your vial or your CoA to find the most accurate storage condition for this antibody.
Application	IHC-P - Quality tested WB, ELISA - Reported in the literature, not verified in house
Recommended Usage	Each lot of this antibody is quality control tested by formalin-fixed paraffin-embedded immunohistochemical staining. For immunohistochemistry, a concentration of 10 µg/ml is suggested. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	This antibody is specific for Tau nitrated at Tyr18. It does not cross react with wild type tau, or tau nitrated at Tyr 29, Tyr 197, or Tyr 394.
Application References	<ol style="list-style-type: none"> 1. Reyes J., et al. Selective Tau Tyrosine Nitration in Non-AD Tauopathies. <i>Acta Neuropathol</i> 123(1): 119-132, 2012. 2. Reyes J., et al. A Possible Link Between Astrocyte Activation and Tau Nitration in Alzheimer's Disease. <i>Neurobiol Dis</i> 31(2): 198-208, 2008. 3. Reynolds M., et al. Tau Nitration Occurs at Tyrosine 29 in the Fibrillar Lesions of Alzheimer's Disease and Other Tauopathies. <i>J Neurosci</i> 26(42): 10636-10645, 2006. 4. Reyes JF, et al. 2008. <i>Neurobiol. Dis.</i> 31:198. (ELISA, WB IHC) 5. Reyes JF, et al. 2012. <i>Acta. Neuropathol.</i> 123:119. (WB, IHC, ELISA)
(PubMed link indicates BioLegend citation)	

RRID

AB_2721757 (BioLegend Cat. No. 829703)
AB_2564931 (BioLegend Cat. No. 829701)

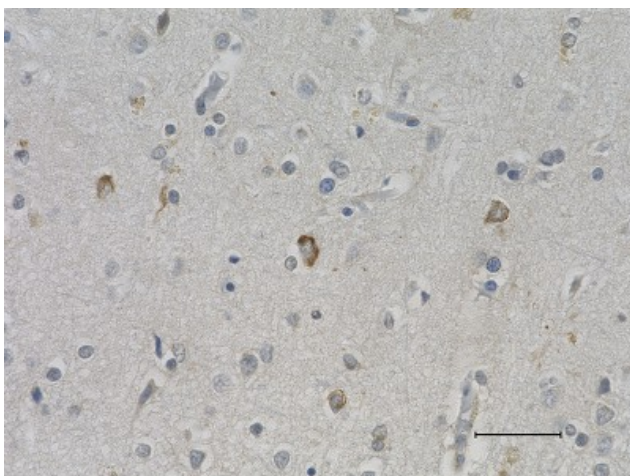
Antigen Details

Cell Type	Embryonic Stem Cells
Biology Area	Cell Biology, Neurodegeneration, Neuroscience, Protein Misfolding and Aggregation, Stem Cells
Molecular Family	Tau
Gene ID	4137

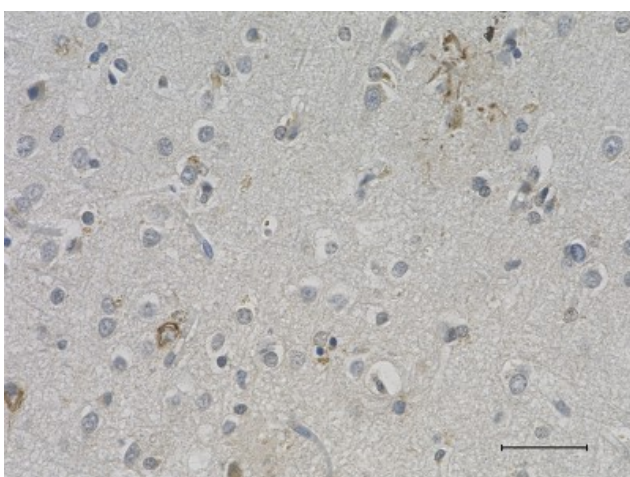
Other Formats

Purified anti-Tau Nitrated (Tyr18)

Product Data



IHC staining of purified anti-Tau Nitrated (Tyr18) antibody (clone Tau-nY18) on formalin-fixed paraffin-embedded Alzheimer's disease human brain tissue. Following antigen retrieval using Sodium Citrate H.I.E.R., the tissue was incubated with 10 µg/ml of the primary antibody overnight at 4°C. BioLegend's Ultra-Streptavidin (USA) HRP kit (Multi-Species, DAB, Cat. No. 929901) was used for detection followed by hematoxylin counterstaining, according to the protocol provided. The image was captured with a 40X objective. Scale bar: 50 µm



IHC staining of purified anti-Tau Nitrated (Tyr18) antibody (clone Tau-nY18) on formalin-fixed paraffin-embedded Alzheimer's disease human brain tissue. Following antigen retrieval using Sodium Citrate H.I.E.R., the tissue was incubated with 10 µg/ml of the primary antibody overnight at 4°C. BioLegend's Ultra-Streptavidin (USA) HRP kit (Multi-Species, DAB, Cat. No. 929901) was used for detection followed by hematoxylin counterstaining, according to the protocol provided. The image was captured with a 40X objective. Scale bar: 50 µm

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