

HRP anti-Tau, 368-441 Antibody

Catalog# / Size	851203 / 25 µg 851204 / 100 µg
Clone	A16097F
Regulatory Status	RUO
Other Names	Microtubule associated protein tau
Isotype	Rat IgG2a, λ
Description	<p>Tau protein promotes microtubule assembly and stability. Tau is abundant in neurons of the central nervous system, and is expressed at low levels in astrocytes and oligodendrocytes. Abnormal hyper-phosphorylation, aggregation, and toxic gain of function of tau is associated with several neurological disorders, including Alzheimer's disease (AD). The major building block of neurofibrillary lesions in AD brains consists of paired helical filaments (PHFs) of abnormally hyperphosphorylated tau. Six isoforms of tau are generated by alternative splicing of the MAPT gene. These isoforms are distinguished by the number of tubulin binding domains, 3 (3R) or 4 (4R), in the C-terminal of the protein and by one (1N), two (2N), or no (0N) inserts in the N-terminal domain. Tau isoforms are differentially expressed during development.</p>

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Recombinant C-terminal fragment of human 4R Tau protein encompassing amino acid residues 231-441.
Formulation	This antibody is provided in 50% glycerol in aqueous buffered solutions with preservatives.
Preparation	The antibody was purified by affinity chromatography and conjugated with HRP under optimal conditions.
Concentration	0.5 mg/ml
Storage & Handling	Upon receipt, the antibody solution should be stored undiluted at -20°C, and protected from prolonged exposure to light.
Application	WB - Quality tested IHC-P - Verified
Recommended Usage	Each lot of this antibody is quality control tested by Western blotting . For Western blotting, the suggested use of this reagent is 0.25 - 1.0 µg per ml. For immunohistochemistry, a concentration range of 2.0 - 5.0 µg/ml is suggested. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	This antibody cross-reacts with human 3R and 4R Tau isoforms, and recognizes endogenous human Tau in brain lysates by WB. The antibody has minimal reactivity with mouse Tau protein.
RRID	AB_2734636 (BioLegend Cat. No. 851203) AB_2734637 (BioLegend Cat. No. 851204)

Antigen Details

Structure	Unmodified Tau isoforms have an apparent molecular weight ranging from 33-79 kD. Additional high and low molecular weight Tau species have been observed in brain tissues.
Distribution	Tissue distribution: central nervous system, peripheral ganglia and nerves, kidney, skeletal, and

heart muscle.
Cellular distribution: cytoskeleton, nucleus, plasma membrane, and cytosol.

Function	Tau promotes microtubule assembly and stability. The short tau isoforms allow plasticity of the cytoskeleton whereas the longer isoforms may preferentially play a role in its stabilization.
Interaction	Tau interacts with Sequestosome-1, Peptidyl-prolyl cis-trans isomerase FKBP4, Casein kinase I isoform delta, Serine/threonine-protein kinase Sgk1, Laforin, Alpha-synuclein
Biology Area	Cell Biology, Neurodegeneration, Neuroscience, Protein Misfolding and Aggregation
Molecular Family	Tau
Antigen References	<ol style="list-style-type: none">1. Augustinack JC, <i>et al.</i> 2002. <i>Acta Neuropathol.</i> 103(1):26-35. PubMed.2. Seubert P, <i>et al.</i> 1995. <i>J Biol Chem.</i> 270(32):18917-22. PubMed.3. Dong Y, <i>et al.</i> 2012. <i>PLoS One</i> 7(6):e39386. PubMed.
Gene ID	4137

Related Protocols

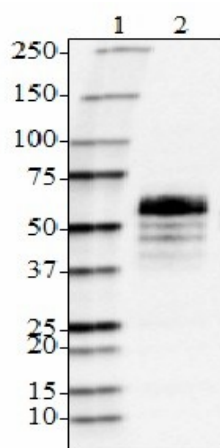
[Western Blotting Protocol](#)

[Immunohistochemistry Protocol for Paraffin-Embedded Sections](#)

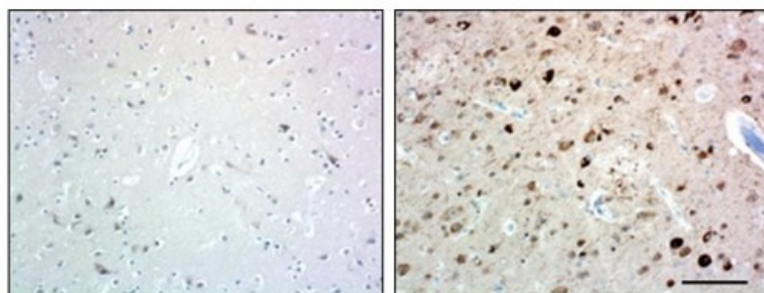
Other Formats

Purified anti-Tau, 368-441, HRP anti-Tau, 368-441, Alexa Fluor® 647 anti-Tau, 368-441

Product Data



Western blot of HRP anti-Tau, 368-441 antibody (clone A16097F). Lane 1: Molecular weight marker; Lane 2: 20 µg of human brain lysate. The blot was incubated with 0.25 µg/mL of the primary antibody overnight at 4°C. Enhanced chemiluminescence (Cat. No. 426302) was used as the detection system.



IHC staining of HRP anti-Tau, 368-441 antibody (clone A16097F) on formalin-fixed paraffin-embedded normal human (left panel) and Alzheimer's disease (right panel) brain tissues. Following antigen retrieval using Sodium Citrate H.I.E.R (Cat. No. 928602), the tissue was incubated with 2.0 µg/mL of the primary antibody overnight at 4°C. DAB was used for detection followed by hematoxylin and bluing solution counterstaining, according to the protocol provided. The images were captured with a 40X objective. Scale bar: 50 µm

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587