

HRP anti-Tau, 359-373 Antibody

Catalog# / Size	851403 / 25 µg 851404 / 100 µg
Clone	A16097B
Regulatory Status	RUO
Other Names	Microtubule associated protein tau
Isotype	Rat IgG2b, κ
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 hyperphosphorylation, 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, Mouse, Rat
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Recombinant fragment of human 4R Tau protein (K18) encompassing the microtubule binding domains.
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	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
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
Recommended Usage	Each lot of this antibody is quality control tested by Western blotting . For Western blotting, the suggested use of this reagent is 0.2 - 1.0 µg per ml. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	This antibody cross-reacts with 3R and 4R human Tau isoforms, and recognizes endogenous human, mouse, and rat Tau in brain lysates by WB.
RRID	AB_2734640 (BioLegend Cat. No. 851403) AB_2734641 (BioLegend Cat. No. 851404)

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

1. Augustinack JC, *et al.* 2002. *Acta Neuropathol.* 103(1):26-35. [PubMed](#).
2. Seubert P, *et al.* 1995. *J Biol Chem.* 270(32):18917-22. [PubMed](#).
3. Dong Y, *et al.* 2012. *PLoS One* 7(6):e39386. [PubMed](#).

Gene ID

[4137](#)

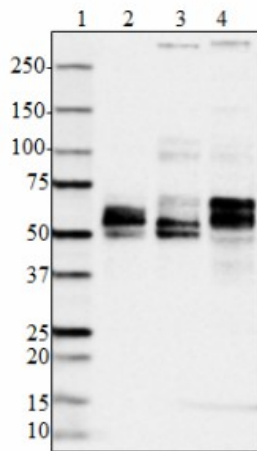
Related Protocols

[Western Blotting Protocol](#)

Other Formats

Purified anti-Tau, 359-373, HRP anti-Tau, 359-373, Biotin anti-Tau, 359-373

Product Data



Western blot of HRP anti-Tau, 359-373 antibody (clone A16097B). Lane 1: Molecular weight marker; Lane 2: 20 µg of human brain lysate; Lane 3: 20 µg of mouse brain lysate; Lane 4: 20 µg of rat brain lysate. The blot was incubated with 0.20 µg/mL of the primary antibody overnight at 4 °C. Enhanced chemiluminescence (Cat. No. 426302) was used as the detection system.

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