

HRP anti-Tau, 189-195 Antibody

Catalog# / Size	814305 / 25 µg 814306 / 100 µg
Clone	39E10
Regulatory Status	RUO
Other Names	Microtubule-associated protein tau, PHF-tau, Paired Helical Filament tau
Isotype	Mouse IgG1, κ
Description	<p>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.</p>

Product Details

Verified Reactivity	Human, Mouse, Rat
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	This monoclonal antibody was raised against full-length human tau.
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
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 is effective in immunoblotting (WB). BioLegend is the Exclusive Provider of this Antibody Product
Application References (PubMed link indicates BioLegend citation)	1. Michalski V, et.al. <i>Neurobiol Aging</i> . 2015. 36(12):3131. (WB) PubMed
Product Citations	1. Serafin V, et al. 2020. <i>Anal Bioanal Chem</i> . 413:799. PubMed
RRID	AB_2734568 (BioLegend Cat. No. 814305) AB_2734569 (BioLegend Cat. No. 814306)

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, and alpha-synuclein.
Biology Area	Cell Biology, Neurodegeneration, Neuroscience, Protein Misfolding and Aggregation
Molecular Family	Tau
Gene ID	4137

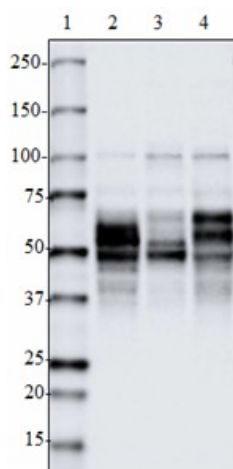
Related Protocols

[Western Blotting Protocol](#)

Other Formats

Purified anti-Tau, 189-195, Biotin anti-Tau, 189-195, HRP anti-Tau, 189-195

Product Data



Western blot of HRP anti-Tau, 189-195 antibody (clone 39E10). Lane 1: Molecular weight marker; Lane 2: 20 µg of normal human brain lysate; Lane 3: 20 µg of mouse brain lysate; Lane 4: 20 µg of rat brain lysate. The blot was incubated with 1.0 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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