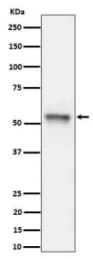
Phospho-Tau (pSer199) Antibody / MAPT [clone 31M19] (FY12025)

Catalog No.	Formulation	Size
FY12025	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	31M19
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	P10636
Applications	Western Blot : 1:500-1:2000
Limitations	This Phospho-Tau (pSer199) antibody is available for research use only.



Western blot analysis of Phospho-Tau (pS199) expression in mouse hippocampus cell lysate using Phospho-Tau (Ser199) antibody. The expected molecular weight of phosphorylated Tau (pSer198) is approximately 45-70 kDa, corresponding to the major Tau isoforms, and lower molecular weight bands around ~35 kDa may represent truncated Tau fragments commonly observed in brain tissue.

Description

Phospho-Tau (pSer199) antibody recognizes tau protein (MAPT) when phosphorylated at serine 199, a modification associated with neurodegenerative disease. Tau is a microtubule-associated protein that stabilizes cytoskeletal structure in neurons. In Alzheimer's disease and related tauopathies, abnormal phosphorylation of tau at multiple sites, including Ser199, leads to microtubule destabilization and the formation of neurofibrillary tangles.

Research employing Phospho-Tau (pSer199) antibody has shown that phosphorylation at this site correlates with early pathological changes in Alzheimer's models. Ser199 phosphorylation is regulated by kinases such as GSK-3beta and CDK5, linking tau pathology to altered kinase activity. Monitoring this specific phosphorylation event provides valuable insight into mechanisms of neuronal dysfunction and progression of tau-related diseases.

Antibodies directed against phospho-tau (pSer199) are validated for applications including western blot, immunofluorescence, and immunohistochemistry. They allow researchers to discriminate between total tau and phosphorylated tau, supporting studies of disease biomarkers, kinase regulation, and therapeutic intervention strategies. Clone validation ensures specificity for the phosphorylated residue, avoiding cross-reactivity with non-modified tau.

NSJ Bioreagents offers this Phospho-Tau (pSer199) antibody to support investigations into Alzheimer's disease, tauopathies, and neuronal cytoskeletal regulation. Alternate names include MAPT antibody, microtubule-associated protein tau antibody, and paired helical filament antibody.

Application Notes

Optimal dilution of the Phospho-Tau (pSer199) antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Phospho-Tau (pS199) was used as the immunogen for the Phospho-Tau (pSer199) antibody.

Storage

Store the Phospho-Tau (pSer199) antibody at -20oC.