

p-Tau (Ser 396): sc-101815

BACKGROUND

Tau, also known as MAPT (microtubule-associated protein tau), MAPTL, MTBT1 or TAU, is a 758 amino acid protein that localizes to the cytoplasm, as well as to the cytoskeleton and the cell membrane, and contains 4 Tau/ MAP repeats. Expressed in neuronal tissue and existing as multiple alternatively spliced isoforms, Tau functions to promote microtubule assembly and stability and is thought to be involved in the maintenance of neuronal polarity. Tau may also link microtubules with neural plasma membrane components and, in addition to its role in microtubule stability, is also necessary for cytoskeletal plasticity. Tau is highly subject to a variety of post-translational modifications, including phosphorylation on serine and threonine residues, polyubiquitination (and subsequent proteasomal degradation) and glycation of specific Tau isoforms. Defects in the gene encoding Tau are associated with Alzheimer's disease, pallido-ponto-nigral degeneration (PPND), corticobasal degeneration (CBD) and progressive supranuclear palsy (PSP).

CHROMOSOMAL LOCATION

Genetic locus: MAPT (human) mapping to 17q21.31; Mapt (mouse) mapping to 11 E1.

SOURCE

p-Tau (Ser 396) is a rabbit polyclonal antibody raised against a short amino acid sequence containing Ser 396 phosphorylated Tau of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

p-Tau (Ser 396) is recommended for detection of Ser 396 phosphorylated Tau of human origin, correspondingly phosphorylated Ser 687 of mouse origin and correspondingly phosphorylated Ser 706 of rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Tau siRNA (h): sc-36614, Tau siRNA (m): sc-36615, Tau siRNA (r): sc-61900, Tau shRNA Plasmid (h): sc-36614-SH, Tau shRNA Plasmid (m): sc-36615-SH, Tau shRNA Plasmid (r): sc-61900-SH, Tau shRNA (h) Lentiviral Particles: sc-36614-V, Tau shRNA (m) Lentiviral Particles: sc-36615-V and Tau shRNA (r) Lentiviral Particles: sc-61900-V.

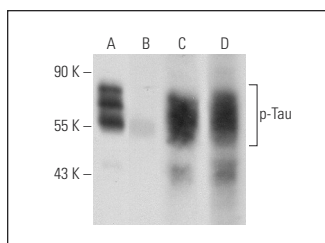
Molecular Weight of p-Tau: 46-80 kDa.

Positive Controls: mouse brain extract: sc-2253, SK-N-SH cell lysate: sc-2410 or rat brain extract: sc-2392.

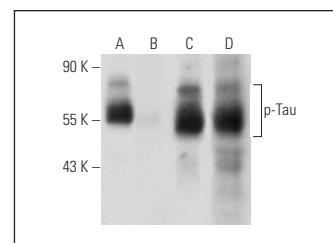
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



Western blot analysis of Tau phosphorylation in untreated (A,C) and lambda protein phosphatase treated (B,D) rat brain tissue extract. Antibodies tested include p-Tau (Ser 396): sc-101815 (A,B) and Tau (C-17): sc-1995 (C,D).



Western blot analysis of Tau phosphorylation in untreated (A,C) and lambda protein phosphatase treated (B,D) mouse brain tissue extract. Antibodies tested include p-Tau (Ser 396): sc-101815 (A,B) and Tau (C-17): sc-1995 (C,D).

SELECT PRODUCT CITATIONS

- Ding, Y., et al. 2008. Retinoic acid attenuates β -amyloid deposition and rescues memory deficits in an Alzheimer's disease transgenic mouse model. *J. Neurosci.* 28: 11622-11634.
- Zhang, X., et al. 2011. Long-term treatment with lithium alleviates memory deficits and reduces amyloid- β production in an aged Alzheimer's disease transgenic mouse model. *J. Alzheimers Dis.* 24: 739-749.
- Xian, Y.F., et al. 2012. Bioassay-guided Isolation of neuroprotective compounds from *Uncaria rhynchophylla* against β -amyloid-induced neurotoxicity. *Evid. Based. Complement. Alternat. Med.* 2012: 802625.
- Zhang, X., et al. 2013. Prenatal hypoxia may aggravate the cognitive impairment and Alzheimer's disease neuropathology in APPSwe/PS1A246E transgenic mice. *Neurobiol. Aging* 34: 663-678.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



MONOS
Satisfaction
Guaranteed

Try **p-Tau (PHF-13): sc-32275**, our highly recommended monoclonal alternative to p-Tau (Ser 396).