p-Tau (PHF-13): sc-32275

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 four 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).

REFERENCES


CHROMOSOMAL LOCATION

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

SOURCE

p-Tau (PHF-13) is a mouse monoclonal antibody raised against highly purified PHF-Tau preparation.

RESEARCH USE

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

PRODUCT

Each vial contains 200 µg IgG2b in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p-Tau (PHF-13) is available conjugated to agarose (sc-32275 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-32275 AF488), Alexa Fluor® 488 (sc-32275 AF488), Alexa Fluor® 594 (sc-32275 AF594), Alexa Fluor® 647 (sc-32275 AF647), 200 µg/ml, for WB (RGB), IF, IHCP and FCM; and to either Alexa Fluor® 680 (sc-32275 AF680) or Alexa Fluor® 790 (sc-32275 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

p-Tau (PHF-13) is recommended for detection of Tau phosphorylated at Ser 396 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

APPLICATIONS


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

Positive Controls: SK-N-SH cell lysate: sc-2410.

SELECT PRODUCT CITATIONS


STORAGE

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

PROTOCOLS

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