**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, 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**

Tau (A-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 716-735 near the C-terminus of Tau of human origin.

**PRODUCT**

Each vial contains 200 µg IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Tau (A-10) is available conjugated to agarose (sc-390476 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390476 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycocyanin (sc-390476 PE), fluorescein (sc-390476 FITC), Alexa Fluor® 488 (sc-390476 AF488), Alexa Fluor® 546 (sc-390476 AF546), Alexa Fluor® 594 (sc-390476 AF594) or Alexa Fluor® 647 (sc-390476 AF647), 200 µg/ml, for WB (RQ8), IF, IHC(PE) and FC; and to either Alexa Fluor® 680 (sc-390476 AF680) or Alexa Fluor® 790 (sc-390476 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FC.

Blocking peptide available for competition studies, sc-390476 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

**STORAGE**

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

**APPLICATIONS**

Tau (A-10) is recommended for detection of multiple Tau isoforms of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Tau (A-10) is also recommended for detection of multiple Tau isoforms in additional species, including equine, canine, bovine and porcine.


Molecular Weight of Tau: 46-80 kDa.

Positive Controls: SK-N-MC cell lysate: sc-2237 or TE671 cell lysate: sc-2416.

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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