ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Microtubule-associated protein tau (MAPT) Antibody

□ Cat # MAPT11-A | Rabbit anti-Human phosphor (S396) Tau antibody | **SIZE**: 100 ug

Promotes microtubule assembly and stability, and might be involved in the establishment and maintenance of neuronal polarity. The C-terminus binds axonal microtubules while the N-terminus binds neural plasma membrane components, suggesting that tau functions as a linker protein between both. Axonal polarity is predetermined by tau localization (in the neuronal cell) in the domain of the cell body defined by the centrosome. The short isoforms allow plasticity of the cytoskeleton whereas the longer isoforms may preferentially play a role in its stabilization.

Source of Antigen or Antibodies

Uniprot: P10636

Host: Rabbit

Clonality: Polyclonal

Purification: Ammonium sulfate followed by peptide affinity purification

Immunogen: Synthetic phosphopeptide surrounding S396

Species Reactivity: Mouse

Cross reactivity: The phosphopeptide used as an immunogen exhibits 100% homology with Monkey. 92% with Dog, Cat, and Horse and 88% with Sheep. Due to low homology it is not recommended in Mouse or Rat.

Subcellular Location: Cytosol, cytoskeleton, plasma membrane, axon, and dendrite

Tissue specificity: Expressed in neurons and at a lower level in the liver and kidney. Isoform PNS-tau is expressed in the peripheral nervous system while the others are expressed in the central nervous system.

Recommended Secondary Antibody: Goat anti-Rabbit IgG-HRP (**ADI cat#20320)**

Negative Control: Non-immune Rabbit IgG (**ADI cat# 20009-1**).

Form & Storage of Antibodies

Affinity pure IgG
□ Solution

Concentration: 0.5 mg/ml Volume: 200 ul
Supplied in PBS pH 7.4 + 0.1% BSA

□ **Lyophilized powder**

Reconstitute powder in 200 ul distilled water to 0.5 mg/ml

Storage:

Short-term: 4°C for 1 month

Long-term: at –20°C or below in suitable aliquots after reconstitution for 1 year. Do not expose to multiple free/thaw cycles or store working, diluted solutions.

Recommended Usage

Western Blotting: 0.5-1 ug/ml

IHC-P: 1-5 ug/ml. Antigen retrieval in pH 6 sodium citrate buffer is recommended.

*Above concentrations are a suggestion, user's must optimize their assay based on their own conditions. The antibody may work in other applications such as Flow Cytometry, ICC, or IP. These methods have not been tested by ADI.

General References

[1] Zhou Y, Shi J, Chu D, et al. Relevance of Phosphorylation and Truncation of Tau to the Etiopathogenesis of Alzheimer's Disease. Frontiers in Aging Neuroscience. 2018;10:27.

**This product is for In vitro research use only.*

Related materials available from ADI

Amyloid, TDP-43, Synuclein antibodies are also available from ADI

MAPT11-A 180902IA

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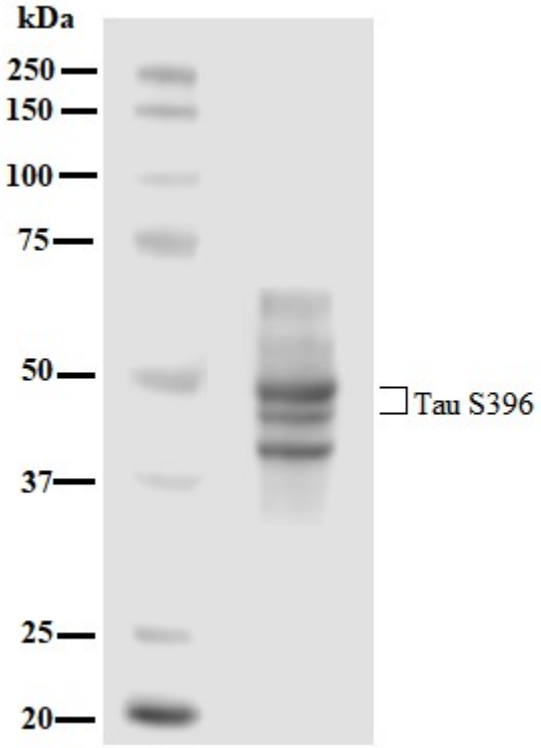

20 ug of a Human brain lysate was heated for 5 minutes at 95°C then electrophoretically separated on a 10% SDS-PAGE gel. The gel was run for ~1 hour and 30 minutes at 100V and transferred to a 0.2 um nitrocellulose membrane using the 'Mixed MW' settings on a Transblot Turbo (Biorad). The blot was blocked for 1 hour at room temperature with 1% Fish plasma (Aquablock, EastCoastBio). **MAPT11-A** was diluted with TBST+0.1% BSA to 1 ug/ml and incubated overnight at 4°C. The blot was washed with TBS-T 3 times for 5 minutes each. Goat anti-rabbit IgG HRP (**ADI cat#20320**) was diluted 1:10,000 (50 ng/ml) in TBST+0.1% BSA and incubated for 1 hour at room temperature. The blot was washed with TBS-T 3 times for 5 minutes each. The blot was then incubated with ADI Femto ECL substrate (**ADI cat#80210**) for 5 minutes andimaged on a CCD imaging system (LI-COR, C-DIGIT).