

### Tau Antibody

Rabbit Anti-Human Truncated Tau Fragment (AA297-391) (dGAE) Polyclonal Catalog # ASM10652

### **Specification**

## **Tau Antibody - Product Information**

Application WB
Primary Accession P10636
Other Accession NP\_005901.2
Host Rabbit
Reactivity Rat

Clonality Polyclonal

Format Truncated Tau Fragment (AA297-391)

(dGAE)

**Target/Specificity** 

Truncated Tau Fragment (AA297-391) (dGAE)

#### **Other Names**

Tau Antibody, Neurofibrillary tangle protein Antibody, MAPTL Antibody, Microtubule-associated protein tau Antibody, MTBT1 Antibody, Paired helical filament-tau Antibody, TAU Antibody, PHF-tau Antibody, MAPT Antibody, Al413597 antibody, AW045860 antibody, DDPAC antibody, FLJ31424 antibody, FTDP 17 antibody, G protein beta1/gamma2 subunit interacting factor 1 antibody, MAPT antibody, MAPTL antibody, MGC134287 antibody, MGC138549 antibody, MGC156663 antibody, Microtubule associated protein tau antibody, Microtubule associated protein tau isoform 4 antibody, Microtubule-associated protein tau antibody, MSTD antibody, Mtapt antibody, MTBT1 antibody, Neurofibrillary tangle protein antibody, Paired helical filament tau antibody, Paired helical filament-tau antibody, PHF tau antibody, PPND antibody, PPP1R103 antibody, Protein phosphatase 1, regulatory subunit 103 antibody, RNPTAU antibody, TAU antibody, TAU\_HUMAN antibody, Tauopathy and respiratory failure, included antibody, dGAE tau fibril antibody, Truncated Tau Fragment (AA297-391) antibody, 95-amino acid tau protein fragment antibody, Truncated Tau Protein antibody

### **Immunogen**

Recombinant Human Tau AA297-391 (dGAE) Fibril (SPR-461)

Purification

Protein A

Storage -20°C

**Storage Buffer** 

PBS pH 7.4, 50% glycerol, 0.09% sodium azide \*Storage buffer may change when conjugated

Shipping Temperature

Blue Ice or 4°C

**Certificate of Analysis** 

A 1:1000 dilution of SPC-806 was sufficient for detection of tau in 15  $\mu$ g of mouse, rat brain cell lysates by ECL immunoblot analysis using goat anti-rabbit IgG:HRP as the secondary antibody.

#### **Cellular Localization**

Cytoplasm, Axolemma, Axolemma Plasma Membrane, Axon, Cell Body, Cell membrane, Cytoplasmic Ribonucleoprotein Granule, Cytoplasmic Side, Cytoskeleton, Cytosol, Dendrite, Growth cone, Microtubule, Microtubule Associated Complex, Neurofibrillary Tangle, Neuronal Cell



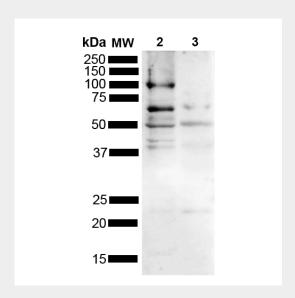
Body, Nuclear Periphery, Nuclear Speck, Nucleus, Peripheral membrane protein, Plasma Membrane, Tubulin Complex

# **Tau Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

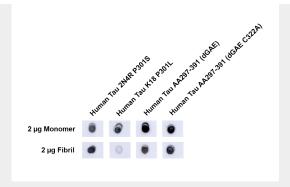
- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

### Tau Antibody - Images



Western blot analysis of Mouse, Rat Brain showing detection of Multiple bands due to different isoforms/aggregation states Tau protein using Rabbit Anti-Tau Polyclonal Antibody (SPC-806). Lane 1: MW Ladder. Lane 2: Mouse brain (15 ug). Lane 2: Rat brain (15 ug). Load: 15 ug. Block: 5% Skim Milk powder in TBST. Primary Antibody: Rabbit Anti-Tau Polyclonal Antibody (SPC-806) at 1:1000 for 2 hours at RT with shaking. Secondary Antibody: Goat anti-rabbit IgG:HRP at 1:4000 for 1 hour at RT with shaking. Color Development: Chemiluminescent for HRP (Moss) for 5 min in RT. Predicted/Observed Size: Multiple bands due to different isoforms/aggregation states. Other Band(s): 50 kDa, 65 kDa, 100 kDa. | Dot blot analysis using Rabbit Anti-Tau Polyclonal Antibody (SPC-806). Tissue: Recombinant Tau Monomers and Fibrils. Species: Human. Primary Antibody: Rabbit Anti-Tau Polyclonal Antibody (SPC-806) at 1:1000 for 2 hours at RT with shaking. Secondary Antibody: Goat anti-rabbit IgG:HRP at 1:4000 for 1 hour at RT with shaking.





Western blot analysis of Mouse, Rat Brain showing detection of Multiple bands due to different isoforms/aggregation states Tau protein using Rabbit Anti-Tau Polyclonal Antibody (SPC-806). Lane 1: MW Ladder. Lane 2: Mouse brain (15 ug). Lane 2: Rat brain (15 ug). Load: 15 ug. Block: 5% Skim Milk powder in TBST. Primary Antibody: Rabbit Anti-Tau Polyclonal Antibody (SPC-806) at 1:1000 for 2 hours at RT with shaking. Secondary Antibody: Goat anti-rabbit IgG:HRP at 1:4000 for 1 hour at RT with shaking. Color Development: Chemiluminescent for HRP (Moss) for 5 min in RT. Predicted/Observed Size: Multiple bands due to different isoforms/aggregation states. Other Band(s): 50 kDa, 65 kDa, 100 kDa. | Dot blot analysis using Rabbit Anti-Tau Polyclonal Antibody (SPC-806). Tissue: Recombinant Tau Monomers and Fibrils. Species: Human. Primary Antibody: Rabbit Anti-Tau Polyclonal Antibody (SPC-806) at 1:1000 for 2 hours at RT with shaking. Secondary Antibody: Goat anti-rabbit IgG:HRP at 1:4000 for 1 hour at RT with shaking.

## Tau Antibody - Background

Alzheimer's Disease (AD) is the most common neurodegenerative disease, affecting 10% of seniors over the age of 65 (1). It was named after Alois Alzheimer, a German scientist who discovered tangled bundles of fibrils where neurons had once been in the brain of a deceased patient in 1907 (2). Tau (tubulin-associated unit) is normally located in the axons of neurons where it stabilizes microtubules. Tauopathies such as AD are characterized by neurofibrillary tangles containing paired helical filaments (PHFs). A truncated 95-amino acid fragment corresponding to residues 297-391 of full-length tau has been shown to assemble into PHF-like fibrils in vitro in the absence of additives or templates (3). This fragment has been found in the core of PHFs from AD brains and forms filaments that closely resemble PHFs isolated from AD brains (3).

## **Tau Antibody - References**

- 1. www.alz.org/alzheimers-dementia/facts-figures
- 2. Alzheimer, A. Über eine eigenartige Erkrankung der Hirnrinde. Allg. Z. Psychiatr. Psych.-Gerichtl. Med. 64, 146–148 (1907)
- 3. Al-Hilaly, Y.K. et al. Alzheimer's Disease-like Paired Helical Filament Assembly from Truncated Tau Protein Is Independent of Disulfide Crosslinking. J. Mol. Biol. 429(23):3650-3665 (2017)