

Tau Antibody
Tau Antibody, Clone 3D4
Catalog # ASM10697**Specification****Tau Antibody - Product Information**

Primary Accession	P10636
Other Accession	NP_005901.2
Host	Mouse
Clonality	Monoclonal
Target/Specificity	
Tau	

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, A1413597 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, MTBT2 antibody, Neurofibrillary tangle protein antibody, Paired helical filament tau antibody, Paired helical filament-tau antibody, PHF tau antibody, PHF-tau antibody, PPND antibody, PPP1R103 antibody, Protein phosphatase 1, regulatory subunit 103 antibody, pTau antibody, RNPTAU antibody, TAU antibody, TAU_HUMAN antibody, Tauopathy and respiratory failure, included antibody

Immunogen

Human Recombinant Tau441 (2N4R), P301S mutant Protein Pre-formed Fibrils

Purification

Protein G Purified

Storage	-20°C
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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
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Certificate of Analysis

A 1:1000 dilution of SMC-608 was sufficient for detection of Tau 2N4R P301S Fibril in 20 ug of Mouse Brain by ECL immunoblot analysis using goat anti-mouse IgG:HRP as the secondary antibody.

Cellular Localization

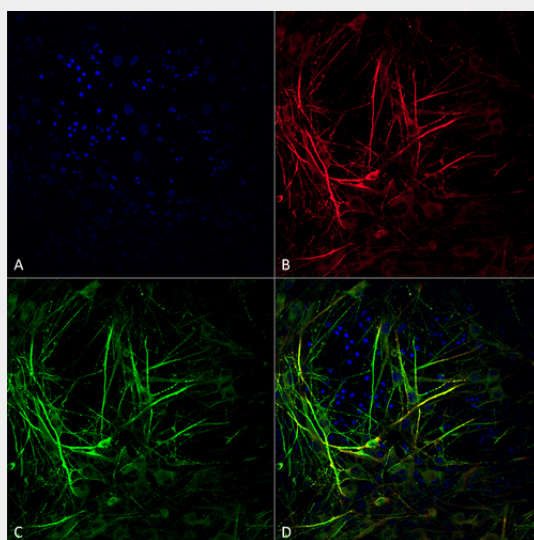
Cytoplasm | Axolemma | Axolemma Plasma Membrane | Axon | Cell Body | Cell membrane | Cytoplasmic Ribonucleoprotein Granule | Cytoplasmic Side | Cytoskeleton | Cytosol | Dendrite | Growth cone | Microtubule | Microtubule Associated Complex | Neurofibrillary Tangle | Neuronal Cell Body | Nuclear Periphery | Nuclear Speck | Nucleus | Peripheral membrane protein | Plasma Membrane | Tubulin Complex

Tau Antibody - Protocols

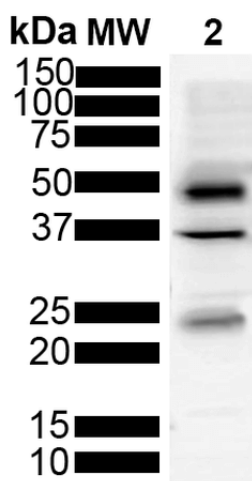
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

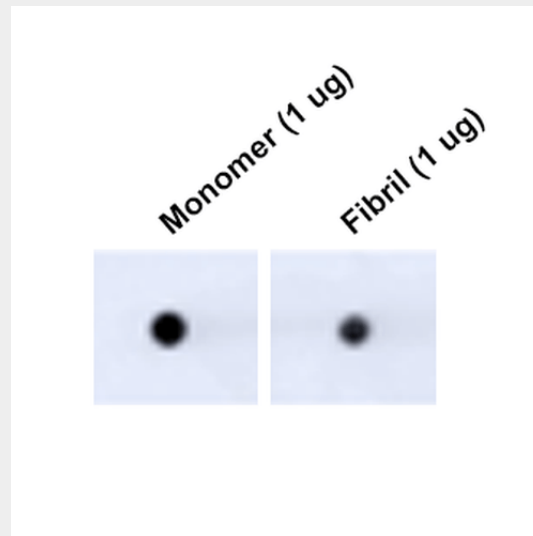
Tau Antibody - Images



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Tau Monoclonal Antibody, Clone 3D4 (ASM10697). Tissue: iPSC-derived neurons. Species: Human. Fixation: 4% PFA. Primary Antibody: Mouse Anti-Tau Monoclonal Antibody (ASM10697) at 1:100 for Overnight at 4°C. Counterstain: DAPI at 1:5000 for 5 minutes at RT in the dark. Magnification: 40X. Courtesy of: Francesco Paonessa.



Western Blot analysis of Mouse Brain showing detection of Tau protein using Mouse Anti-Tau Monoclonal Antibody, Clone 3D4 (ASM10697). Lane 1: MW Marker. Lane 2: Mouse Brain (20ug).. Block: 5% Skim Milk powder in TBST. Primary Antibody: Mouse Anti-Tau Monoclonal Antibody (ASM10697) at 1:1000 for 2 hours at RT with shaking. Secondary Antibody: Goat anti-mouse IgG:HRP at 1:5000 for 1 hour at RT with shaking. Color Development: Chemiluminescent for HRP (Moss) for 5 min in RT.



Dot Blot analysis using Mouse Anti-Tau Monoclonal Antibody, Clone 3D4 (ASM10697). Tissue: Recombinant Protein. Species: Human. Primary Antibody: Mouse Anti-Tau Monoclonal Antibody (ASM10697) at 1:1000 for 2 hours at RT with shaking. Secondary Antibody: Goat anti-mouse IgG:HRP at 1:5000 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 hyperphosphorylated tau fibrils (3). There are six isoforms of tau in the adult human brain: three with four repeat units (4R) and three with three repeat units (3R) (4). 2N4R, or Tau-441 is the full length tau protein. P301S is a mutation encoded by exon 10 (4) that impairs the ability of tau to assemble microtubules (5).

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. Matsumoto, G. et al. (2018). Int J Mol Sci. 19, 1497.
4. Goedert, M. and Spillantini, M. G. (2017). Mol Brain. 10:18.
5. Bugiani, O. et al. (1999). J Neuropathol Exp Neurol. 58(6):667-77.