

# Anti-Tau Antibody

## R1401-7



<b>Product Type:</b>	Rabbit polyclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB, IF-Cell, IHC-P
<b>Molecular Wt:</b>	Predicted band size: 79 kDa

**Description:** Tau protein is a highly soluble microtubule-associated protein (MAP). In humans, these proteins are found mostly in neurons compared to non-neuronal cells. One of tau's main functions is to modulate the stability of axonal microtubules. Other nervous system MAPs may perform similar functions, as suggested by tau knockout mice that did not show abnormalities in brain development - possibly because of compensation in tau deficiency by other MAPs. Six tau isoforms exist in human brain tissue, and they are distinguished by their number of binding domains. Three isoforms have three binding domains and the other three have four binding domains. Tau is a phosphoprotein with 79 potential Serine (Ser) and Threonine (Thr) phosphorylation sites on the longest tau isoform. Phosphorylation has been reported on approximately 30 of these sites in normal tau proteins. Hyperphosphorylation of the tau protein (tau inclusions, pTau) can result in the self-assembly of tangles of paired helical filaments and straight filaments, which are involved in the pathogenesis of Alzheimer's disease and other tauopathies.

**Immunogen:** Synthetic peptide within N-terminal human Tau.

**Positive control:** Human brain tissue lysate, mouse brain tissue lysate, mouse hippocampus tissue lysate, SHG-44, rat brain tissue, mouse brain tissue.

**Subcellular location:** Cytoplasm

**Database links:** SwissProt: P10636 Human | P10637 Mouse | P19332 Rat

**Recommended Dilutions:**

<b>WB</b>	1:1,000-1:2,000
<b>IF-Cell</b>	1:50-1:200
<b>IHC-P</b>	1:50-1:200

**Storage Buffer:** 1\*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.

**Purity:** Immunogen affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

华安生物  
HUABIO  
www.huabio.cn

## Images

**Fig1:** Western blot analysis of Tau on different lysates with Rabbit anti-Tau antibody (R1401-7) at 1/1,000 dilution.

Lane 1: Human brain tissue lysate  
Lane 2: Mouse brain tissue lysate  
Lane 3: Mouse hippocampus tissue lysate

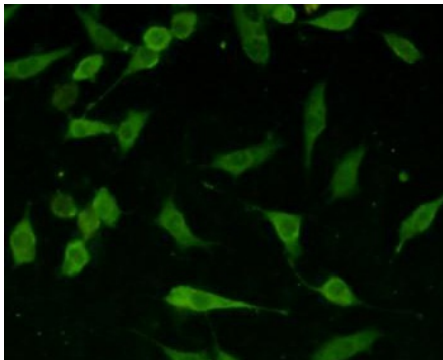
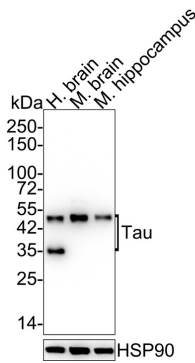
Lysates/proteins at 20 µg/Lane.

Predicted band size: 79 kDa  
Observed band size: 35-50 kDa

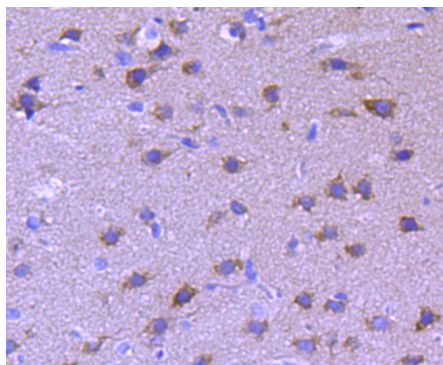
Exposure time: 1 minute 55 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (R1401-7) at 1/1,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.



**Fig2:** ICC staining Tau in SHG-44 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



**Fig3:** Immunohistochemical analysis of paraffin-embedded rat brain tissue using anti-Tau antibody. Counter stained with hematoxylin.

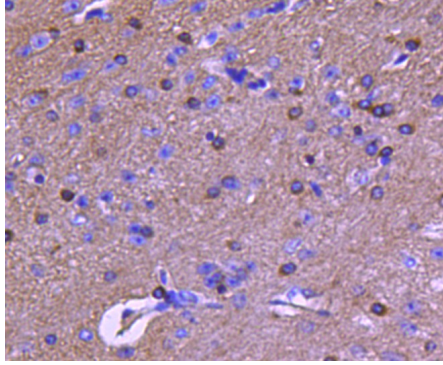
Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

华安生物  
HUABIO  
www.huabio.cn



**Fig4:** Immunohistochemical analysis of paraffin-embedded mouse brain tissue using anti-Tau antibody. Counter stained with hematoxylin.

**Note:** All products are “FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE”.

### Background References

1. Yoshida H et al. Phosphorylation of microtubule-associated protein tau by AMPK-related kinases. *J Neurochem* 120:165-176 (2012).
2. Maas T et al. Interaction of tau with the neural membrane cortex is regulated by phosphorylation at sites that are modified in paired helical filaments. *J Biol Chem* 275:15733-15740 (2000).

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

华安生物  
HUABIO  
www.huabio.cn