

## Tau(Phospho-T231) Rabbit mAb

Catalog No: #13381

Package Size: #13381-1 50ul #13381-2 100ul

## Description

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name          | Tau(Phospho-T231) Rabbit mAb                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Host Species          | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Clonality             | Monoclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Clone No.             | SC58-08                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Purification          | ProA affinity purified                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Applications          | WB, ICC/IF, IHC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Species Reactivity    | Hu, Ms, Rt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Immunogen Description | Synthetic phospho-peptide corresponding to residues surrounding Thr231 of human Tau.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Conjugates            | Unconjugated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Other Names           | AI413597 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 |
| Accession No.         | Swiss-Prot#:P10636                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Calculated MW         | Predicted band size: 46 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| SDS-PAGE MW           | Observed band size: 48 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Formulation           | 1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Storage               | Store at -20°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

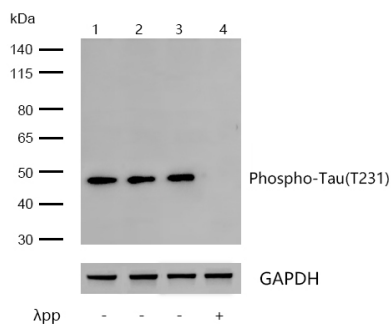
## Application Details

WB: 1:500-1:2000

ICC/IF: 1:50-1:200

IHC: 1:50-1:200

## Images



All lanes : Tau(Phospho-T231) Rabbit mAb at 1/1k dilution

Lane 1 : SH-SY5Y whole cell lysates

Lane 2 : Rat brain tissue lysates

Lane 3 : Mouse brain tissue lysates

Lane 4 : Mouse brain treated with λpp for 1 hour tissue lysates

Lysates/proteins at 20 µg per lane.

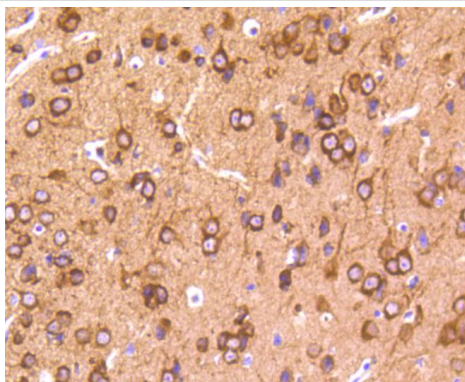
Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) at 1/20000 dilution

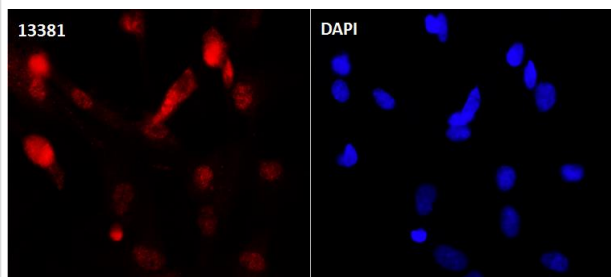
Predicted band size: 46 kDa

Observed band size: 48 kDa

Exposure time: 9 seconds



Formalin-fixed, paraffin-embedded mouse brain tissue stained for Tau(Phospho-T231) using 13381 at 1/100 dilution in immunohistochemical analysis.



Immunocytochemistry/ Immunofluorescence Tau

(Phospho-T231) antibody (13381)

ICC/IF staining of Tau (Phospho-T231) in SH-SY5Y cells. Cells were fixed with 4% Paraformaldehyde permeabilized with 0.1% Triton X-100.

Samples were incubated with 13381 at a working dilution of 1/100. The secondary antibody was Alexa FluorB 647 goat anti rabbit, used at a dilution of 1/500.

Nuclei were counterstained with DAPI.

## 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 Alzheimers disease, pallido-ponto-nigral degeneration (PPND), corticobasal degeneration (CBD) and progressive supranuclear palsy (PSP).

## References

el at., Physiological clearance of A $\epsilon$ <sup>YY</sup> by spleen and splenectomy aggravates Alzheimer-type pathogenesis. In *Aging Cell* on 2021 Dec 23 by Zhong-Yuan Yu, Dong-Wan Chen,et al..PMID:34939734, , (2021)

[PMID:34939734](#)

el at., 14-3-3 $\epsilon$ <sup>3</sup> Captures SET in the Cytoplasm, Mediating Tau Pathology and Cognitive Impairments., , (2021)

[PMID:](#)

el at., Physiological clearance of A $\beta$  by spleen and splenectomy aggravates Alzheimer-type pathogenesis. In *Aging Cell* on 2022 Jan by Zhong-Yuan Yu, Dong-Wan Chen,et al..PMID:34939734, , (2022)

[PMID:34939734](#)

el at., Autoantibodies to BACE1 promote A $\beta$  accumulation and neurodegeneration in Alzheimer's disease. In *Acta Neuropathol* on 2024 Oct 24 by Ye-Ran Wang, Xiao-Qin Zeng,et al..PMID:39448400, , (2024)

[PMID:39448400](#)

el at., Autoantibodies to BACE1 promote A $\beta$  accumulation and neurodegeneration in Alzheimer's disease. In *Acta Neuropathol* on 2024 Oct 24 by Ye-Ran Wang, Xiao-Qin Zeng,et al..PMID:39448400, , (2024)

[PMID:39448400](#)

Qing Zhang;Yiyuan Xia;Hongbin Luo;Sheng Huang;Yongjun Wang;Yangping Shentu;Yacoubou Abdoul Razak Mahaman;Fang Huang;Dan Ke;Qun Wang;Rong Liu;JianZhi Wang;Bin Zhang;Xiaochuan Wang el at., Codonopsis pilosula Polysaccharide Attenuates Tau Hyperphosphorylation and Cognitive Impairments in hTau Infected Mice, , (2018)

[PMID:](#)

Yu Zhong-Yuan;Liu Jie;Liu Zhi-Hao;Liu Xiao-Yu;Tuo Jin-Mei;Li Jiang-Hui;Tu Yun-Feng;Tan Qi;Ma Yuan-Yuan;Bai Yu-Di;Xin Jia-Yan;Huang Shan;Zeng Gui-Hua;Shi An-Yu;Wang Jun;Liu Yu-Hui;Bu Xian-Le;Ye Li-Lin;Wan Ying;Liu Tong-Fei;Chen Xiao-Wei;Qiu Zi-Long;Gao Chang-Yue;Wang Yan-Jiang el at., Roles of blood monocytes carrying TREM2 R47H mutation in pathogenesis of Alzheimer's disease and its therapeutic potential in APP/PS1 mice, , (2024)

[PMID:](#)

Meng-Ting Wang;Zi-Cheng Hu;Yang Xiang;Xiao-Qin Zeng;Zhang-Cheng Fei;Jia Chen;Xin-Peng Li;Yu-Peng Zhu;Jun Wang;Yan-Jiang Wang;Zhi-Qiang Xu;Yu-Hui Liu el at., Fingolimod ameliorates amyloid deposition and neurodegeneration in APP/PS1 mouse model of Alzheimer's disease., , (2025)

[PMID:40158900](#)

Note: This product is for in vitro research use only and is not intended for use in humans or animals.