Tau (Cleaved Asp421, Asp422) Monoclonal Antibody (TauC3)

Product Details	
Size	50 µg
Species Reactivity	Human, Mouse, Rat
Published Species	Rat, Mouse, Human
Host/Isotype	Mouse / IgG1, kappa
Class	Monoclonal
Type	Antibody
Clone	TauC3
Conjugate	Unconjugated
Immunogen	KLH-CSSTGSIDMVD, corresponding to the C terminus of tau truncated at Asp421.
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 1% BSA
Contains	0.1% sodium azide
Storage conditions	-20°C
RRID	AB_2536237

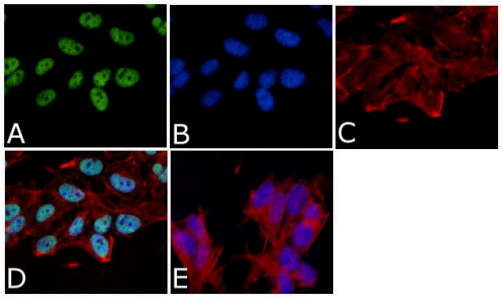
Applications	Tested Dilution	Publications
Western Blot (WB)	Assay-dependent	9 Publications
Immunohistochemistry (IHC)	-	2 Publications
Immunohistochemistry (Paraffin) (IHC (P))	1:10-1:100	-
Immunocytochemistry (ICC/IF)	1 µg/mL	-
Immunoprecipitation (IP)	Assay-dependent	-
Miscellaneous PubMed (Misc)	-	1 Publication

Product Specific Information

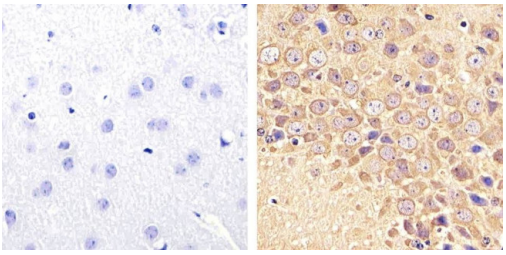
This antibody recognizes tau when truncated at Asp421. Several caspases, including caspase-3, caspase-7, and caspase-8, cleave tau at this site, yielding the truncated form of the protein. This antibody does not react with full-length tau, or with tau truncated at Glu391 or Ala429. This antibody provides a tool for studying neuronal cell apoptosis.

Recommended Positive Control: Tau and caspase-3 cleaved tau.

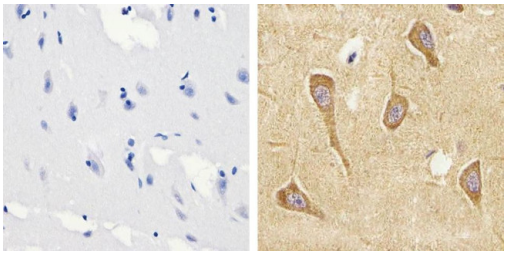
Product Images For Tau (Cleaved Asp421, Asp422) Monoclonal Antibody (TauC3)



Tau (Cleaved Asp421, Asp422) Antibody (AHB0061) in ICC/IF
Immunofluorescent analysis of Tau (Cleavage site 421/422) Antibody (TauC3) was done on 70% confluent log phase SHSY5Y cells. The cells were fixed with 4% paraformaldehyde for 15 minutes, permeabilized with 0.25% Triton™ X-100 for 10 minutes, and blocked with 5% BSA for 1 hour at room temperature. The cells were labeled with Tau (Cleavage site 421/422) Antibody (TauC3) (Product # AHB0061) at 1µg/mL in 1% BSA and incubated for 3 hours at room temperature and then labeled with Alexa Fluor 488 Rabbit Anti-Mouse IgG Secondary Antibody (Product # A-11059) at a dilution of 1:400 for 45 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI (Product # S36938). F-actin (Panel c: red) was stained with Alexa Fluor 594 Phalloidin (Product # A12381). Panel d is a merged image showing nuclear localization. Panel e is a no primary antibody control. The images were captured at 40X magnification.



Tau (Cleaved Asp421, Asp422) Antibody (AHB0061) in IHC (P)
Immunohistochemistry analysis of Tau (421/422 cleavage site) showing staining in the cytoplasm of paraffin-embedded mouse brain tissue (right) compared to a negative control without primary antibody (left). To expose target proteins, antigen retrieval was performed using 10mM sodium citrate (pH 6.0), microwaved for 8-15 min. Following antigen retrieval, tissues were blocked in 3% H2O2-methanol for 15 min at room temperature, washed with ddH2O and PBS, and then probed with a Tau (421/422 cleavage site) monoclonal antibody (Product # AHB0061) diluted in 3% BSA-PBS at a dilution of 1:20 overnight at 4°C in a humidified chamber. Tissues were washed extensively in PBST and detection was performed using an HRP-conjugated secondary antibody followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.



Tau (Cleaved Asp421, Asp422) Antibody (AHB0061) in IHC (P)
Immunohistochemistry analysis of Tau (421/422 cleavage site) showing staining in the cytoplasm of paraffin-embedded human brain tissue (right) compared to a negative control without primary antibody (left). To expose target proteins, antigen retrieval was performed using 10mM sodium citrate (pH 6.0), microwaved for 8-15 min. Following antigen retrieval, tissues were blocked in 3% H2O2-methanol for 15 min at room temperature, washed with ddH2O and PBS, and then probed with a Tau (421/422 cleavage site) monoclonal antibody (Product # AHB0061) diluted in 3% BSA-PBS at a dilution of 1:20 overnight at 4°C in a humidified chamber. Tissues were washed extensively in PBST and detection was performed using an HRP-conjugated secondary antibody followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.

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12 References

Western Blot (9)

Molecular neurobiology

Direct and Indirect Effects of Filamin A on Tau Pathology in Neuronal Cells.

"AHB0061 was used in Western Blotting to indicate that in Tauopathies, FLNA could contribute to Tau pathology by acting on Tau and annexin A2."

Authors: Levert S,Pilliod J,Aumont É,Armanville S,Tremblay C,Calon F,Leclerc N

Year 2023

Species Mouse

Dilution 1:1000

Frontiers in aging neuroscience

Relevance of Phosphorylation and Truncation of Tau to the Etiopathogenesis of Alzheimer's Disease.

"Published figure using Tau (Cleaved Asp421, Asp422) monoclonal antibody (Product # AHB0061) in Western Blot"

Authors: Zhou Y,Shi J,Chu D,Hu W,Guan Z,Gong CX,Iqbal K,Liu F

Year 2022

Species Human

View more WB references on thermofisher.com

Immunohistochemistry (2)

Aging cell

Early-life exposure to high-fat diet influences brain health in aging mice.

"AHB0061 was used in Western Blotting to investigate the effect that maternal high-fat diet during gestation has on brain health of the offspring later in life."

Authors: Di Meco A,Praticò D

Year 2019

Species Mouse

Dilution 1:200

Nature communications

Pericyte loss influences Alzheimer-like neurodegeneration in mice.

"Published figure using Tau (Cleaved Asp421, Asp422) monoclonal antibody (Product # AHB0061) in Immunohistochemistry"

Authors: Sagare AP,Bell RD,Zhao Z,Ma Q,Winkler EA,Ramanathan A,Zlokovic BV

Year 2014

Species Mouse

More applications with references on thermofisher.com

Misc (1)