abcam

ab76128

Anti-Tau antibody [EP2456Y]

Anti-Tau antibody [EP2456Y] (ab76128) is a rabbit monoclonal antibody detecting Tau in **Western Blot, Flow Cytometry (Intra), IHC-P, ICC/IF, IP**. Suitable for **Human, Mouse, Rat**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 20 publications
- Trusted since 2009

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EP2456Y
Purification technique	Affinity purification Protein A
Specificity	This antibody clone has been shown to react with Tau 4R and 3R isoforms (doi.org/10.1101/2023.04.13.536711). Our testing suggests that this antibody clone does not cross-reacts with MAP2 or MAP4
Dissociation constant	1.55 x 10^{-11} M
Concentration	0.507 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/10000
Notes	**For unpurified use at 1/2000 - 1/10000.**

Species	Rat
Dilution info	1/10000
Notes	**For unpurified use at 1/2000 - 1/10000.**

Species	Human
Dilution info	1/10000
Notes	**For unpurified use at 1/2000 - 1/10000.**

ICC/IF

Tested

Species	Mouse
Dilution info	1/50
Notes	**For unpurified use at 1/100 - 1/500.**

Species	Rat
Dilution info	1/50
Notes	**For unpurified use at 1/100 - 1/500.**

Species	Human
Dilution info	1/50
Notes	**For unpurified use at 1/100 - 1/500.**

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/500
Notes	For unpurified use at 1/160 - 1/1000. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Rat
Dilution info	1/500
Notes	For unpurified use at 1/160 - 1/1000. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Human
Dilution info	1/500
Notes	For unpurified use at 1/160 - 1/1000. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

IHC-P

Tested

Species	Human
Dilution info	1/2000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Mouse
Dilution info	1/2000

Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Rat
Dilution info	1/2000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target data

See full target information MAPT

Function	Promotes microtubule assembly and stability, and might be involved in the establishment and maintenance of neuronal polarity (PubMed:21985311). The C-terminus binds axonal microtubules while the N-terminus binds neural plasma membrane components, suggesting that tau functions as a linker protein between both (PubMed:21985311, PubMed:32961270). Axonal polarity is predetermined by TAU/MAPT localization (in the neuronal cell) in the domain of the cell body defined by the centrosome. The short isoforms allow plasticity of the cytoskeleton whereas the longer isoforms may preferentially play a role in its stabilization.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Product Specifications
Anti-Tau antibody [EP2456Y] (ab76128) was developed by Abcam using patented rabbit monoclonal antibody technology and is validated for use in Flow Cyt (Intra), ICC/IF, WB, IP in human, mouse, rat samples.
Anti-Tau antibody [EP2456Y] (ab76128) specifically detects Tau (UniProt ID: P10636; Molecular weight: 79kDa) and is sold in a convenient trial size to enable initial testing (20 µL) and larger sizes for subsequent scaling up experiments

(100 µL and 1 mL).

Quality and Validation
Abcam's high quality manufacturing and validation processes ensure Anti-Tau antibody [EP2456Y] (ab76128) has high sensitivity and specificity alongside high lot-to-lot consistency and reproducibility.
Anti-Tau antibody [EP2456Y] (ab76128) has been cited over 22 times in peer reviewed journals and is trusted by the scientific community.

Related Products
Antibody clone EP2456Y is also available pre-conjugated to a variety of labels for your convenience - Alexa Fluor® 488, PE, Alexa Fluor® 555 (ab206060, ab210985, ab215290).

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Tau also known as microtubule-associated protein Tau (MAPT) plays an important role in stabilizing microtubules in neuronal cells. Tau is primarily found in the central nervous system but also exists in peripheral neurons. Human Tau protein comes in six isoforms due to alternative splicing with molecular weights ranging from 48 kDa to 67 kDa. This protein predominantly locates in the axons of neurons where it maintains the stability of microtubule tracks necessary for axonal transport.
Biological function summary	Tau is involved in the assembly and stabilization of microtubules essential for maintaining neuronal structure. It interacts with microtubule-binding domains (MBD) to bind and bundle microtubules facilitating intracellular transport. Tau forms a part of the neuronal cytoskeleton complex working closely with other cytoskeletal proteins to preserve the proper axonal transport and function. Abnormally phosphorylated Tau often termed phospho-Tau disrupts this complex affecting microtubule stability.
Pathways	Tau has critical involvement in several signaling cascades such as the microtubule-binding and transport pathways. Glycogen synthase kinase 3 beta (GSK3β) and cyclin-dependent kinase 5 (CDK5) frequently phosphorylate Tau controlling its interaction with microtubules. Phosphorylated Tau accumulates leading to the formation of neurofibrillary tangles often observed in neurodegenerative

	conditions. Additionally Tau interacts with GAPDH impacting cellular energy regulation through potential pathway cross-talk involving oxidative stress responses.
Associated diseases and disorders	Tau is closely associated with Alzheimer's disease and frontotemporal dementia. In Alzheimer's disease hyperphosphorylated Tau aggregates into paired helical filaments forming neurofibrillary tangles while similar aggregates are observed in frontotemporal dementia. In these conditions Tau links to amyloid precursor protein (APP) where misregulated phosphorylation-driven interactions contribute to neurodegeneration. Identifying phospho-Tau and its altered interactions with related proteins aids in understanding and potentially treating these disorders.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

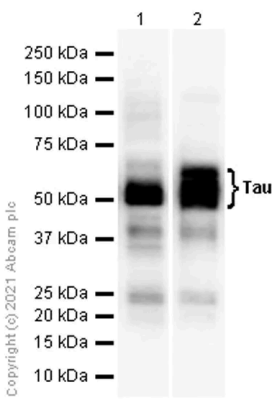
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

21 product images



Western blot - Anti-Tau antibody [EP2456Y] (ab76128)

All lanes:
Western blot - Anti-Tau antibody [EP2456Y] (ab76128) at 1/10000 dilution

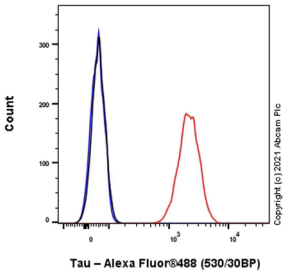
Lane 1:
Mouse brain lysate at 15 µg

Lane 2:
Rat brain lysate at 15 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

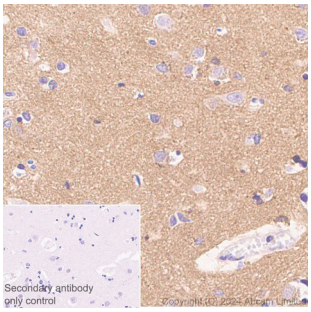
Predicted band size: 78 kDa



Flow Cytometry (Intracellular) - Anti-Tau antibody [EP2456Y] (ab76128)

Tau Flow Cytometry (Intracellular) staining using rabbit Anti-Tau antibody

Intracellular Flow Cytometry analysis of SH-SY5Y (Human neuroblastoma epithelial cell) cells labelling Tau with purified ab76128 at 1/500 dilution (1 µg/mL) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabelled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tau antibody [EP2456Y] (ab76128)

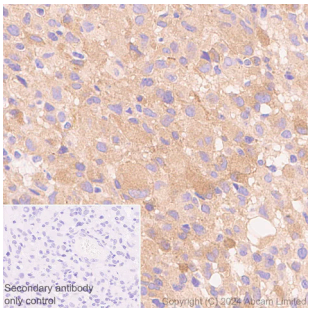
Immunohistochemical analysis of paraffin-embedded human cerebrum labeling Tau with ab76128 at 1/2000 dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on human cerebrum.
The section was incubated with ab76128 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tau antibody [EP2456Y] (ab76128)

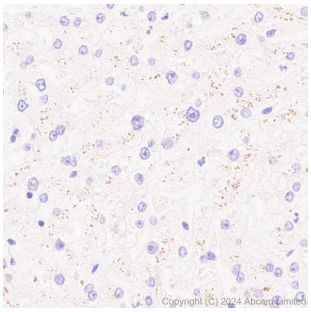
Immunohistochemical analysis of paraffin-embedded human astrocytoma labeling Tau with ab76128 at 1/2000 dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on human astrocytoma.
The section was incubated with ab76128 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tau antibody [EP2456Y] (ab76128)

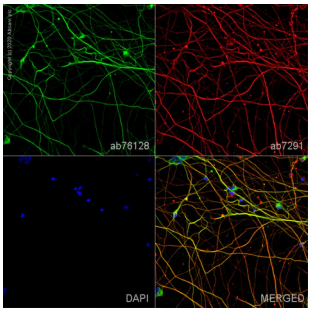
Immunohistochemical analysis of paraffin-embedded human liver labeling Tau with ab76128 at 1/2000 dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Negative Control: no staining on human liver.
The section was incubated with ab76128 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.

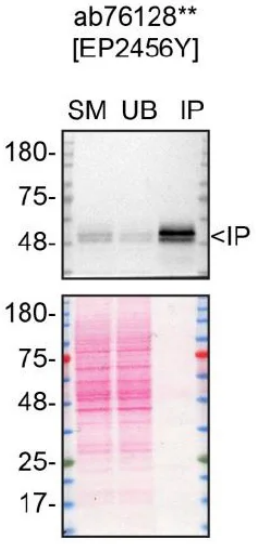


Immunocytochemistry/ Immunofluorescence - Anti-Tau antibody [EP2456Y] (ab76128)

Tau Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Tau antibody

Immunofluorescence staining of Tau using ab76128 (Unpurified format) in ioGlutamatergic Neurons (Human iPSC-Derived Glutamatergic Neurons, ab259259), which were differentiated for 11 days post induction.
The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% PBS-Tween for 5 mins and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab76128 at 0.5 µg/ml and ab7291, Mouse monoclonal [DM1A] to alpha Tubulin, at 1/1000 dilution. Cells were then incubated with ab150081, Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (shown in green) and ab150120, Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) preadsorbed at 1/1000 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

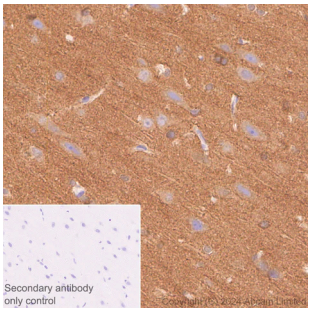
Images were acquired with the Perkin Elmer Operetta HCA and a maximum intensity projection of confocal sections is shown.



Immunoprecipitation - Anti-Tau antibody [EP2456Y] (ab76128)

Immunoprecipitation of MAPT in SK-N-FI cells. Lysates were prepared and immunoprecipitation was performed using 2 µg of ab76128 pre-coupled to Protein A beads. Samples were then washed and processed for western blot.

This data was provided by YCharOS Inc., an open science company with the mission of characterizing commercially available antibody reagents for all human proteins. Abcam and YCharOS are working together to help address the reproducibility crisis by enabling the life science community to better evaluate commercially available antibodies.
All lanes:
SK-N-FI cell lysates



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tau antibody [EP2456Y] (ab76128)

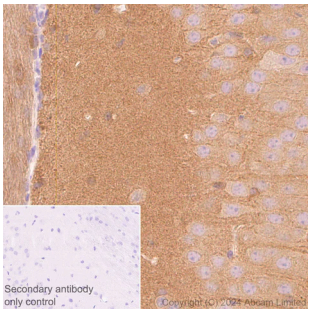
Immunohistochemical analysis of paraffin-embedded rat cerebrum labeling Tau with ab76128 at 1/2000 dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on rat cerebrum.
The section was incubated with ab76128 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tau antibody [EP2456Y] (ab76128)

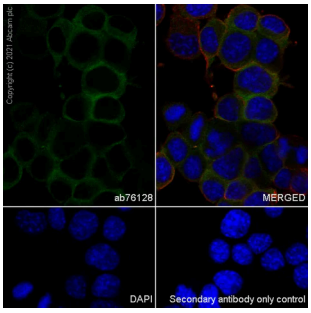
Immunohistochemical analysis of paraffin-embedded mouse cerebrum labeling Tau with ab76128 at 1/2000 dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on mouse cerebrum.
The section was incubated with ab76128 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

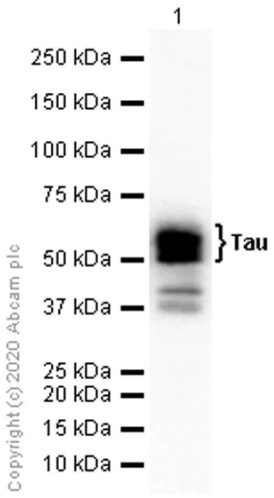
Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



Immunocytochemistry/ Immunofluorescence - Anti-Tau antibody [EP2456Y] (ab76128)

Tau Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Tau antibody

Immunocytochemistry analysis of Neuro-2a (Mouse neuroblastoma neuroblast) cells labeling Tau with purified ab76128 at 1/50 dilution (10 µg/mL). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% TritonX-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/mL). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/1000 (2 µg/mL) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Western blot - Anti-Tau antibody [EP2456Y] (ab76128)

Tau Western blot staining of Human brain lysate using rabbit Anti-Tau antibody

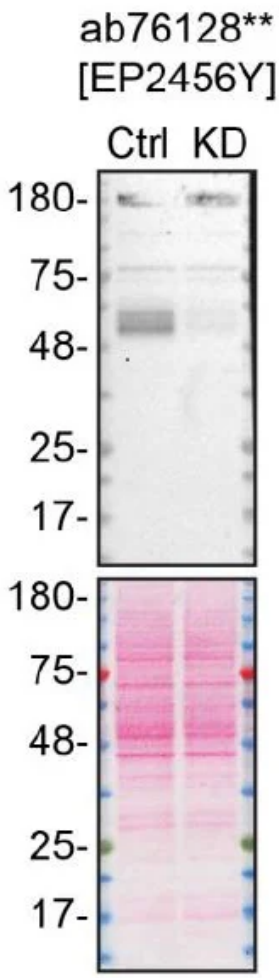
All lanes:
Western blot - Anti-Tau antibody [EP2456Y] (ab76128) at 1/20000 dilution

All lanes:
Human brain lysate at 15 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 78 kDa



Western blot - Anti-Tau antibody [EP2456Y] (ab76128)

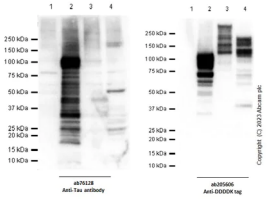
Tau Western blot staining using rabbit Anti-Tau antibody

ab76128 was shown to react with MAPT in wild-type SK-N-FI cells in Western blot with loss of signal observed in a MAPT siRNA knockdown cell line. Cell lysates from wild-type SK-N-FI transfected with either scrambled siRNA or MAPT siRNA were subjected to SDS-PAGE. Membranes were blocked in 5% milk in TBST for 1 hr before incubation with ab76128 overnight at 4 °C at a 1/1000 dilution. Blots were incubated with secondary antibodies at 0.2 µg/mL before imaging.

This data was provided by YCharOS Inc., an open science company with the mission of characterizing commercially available antibody reagents for all human proteins. Abcam and YCharOS are working together to help address the reproducibility crisis by enabling the life science community to better evaluate commercially available antibodies.
All lanes:
Western blot - Anti-Tau antibody [EP2456Y] (ab76128) at 1/1000 dilution

Lane 1:
Wild-type SK-N-FI transfected with scrambled siRNA control lysate at 30 µg

Lane 2:
SK-N-FI transfected with siRNA specifically targeting MAPT cell lysate at 30 µg



Western blot - Anti-Tau antibody [EP2456Y] (ab76128)

Blocking/dilution buffer: 5% NFDM/TBST
All lanes:
Western blot - Anti-Tau antibody [EP2456Y] (ab76128) at 1/1000 dilution

Lane 1:
293T cells transfected with an empty vector containing a flag tag whole cell lysate at 20 µg

Lane 2:
293T cells transfected with a human Tau expression vector containing a flag whole cell lysate at 20 µg

Lane 3:
293T cells transfected with a human MAP2 expression vector containing a flag whole cell lysate at 20 µg

Lane 4:
293T cells transfected with a human MAP4 expression vector containing a flag whole cell lysate at 20 µg

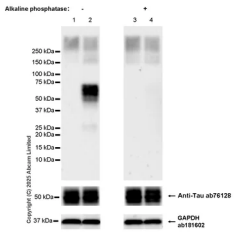
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 78 kDa

Observed band size: 55-100 kDa

Exposure time: 1s



Western blot - Anti-Tau antibody [EP2456Y] (ab76128)

Tau Western blot staining using rabbit Anti-Tau antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

In Western blot, Anti-Tau antibody [EP2456Y] (ab76128) Total Protein Control at 1/1000 dilution.

All lanes:
Western blot - Anti-Tau (phospho S324) antibody [EPR2457(2)] (ab109401) at 1/1000 dilution

Lane 1:
Untreated rat brain tissue lysate (untreated membrane) at 20 µg

Lane 2:
Rat brain treated with 1µM Okadaic Acid and 200nM Calyculin A for 1 hour, tissue lysate (untreated membrane) at 20 µg

Lane 3:
Untreated rat brain tissue lysate (alkaline phosphatase treated membrane) at 20 µg

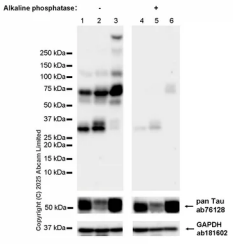
Lane 4:
Rat brain treated with 1µM Okadaic Acid and 200nM Calyculin A for 1 hour, tissue lysate (alkaline phosphatase treated membrane) at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 48-60 kDa

Exposure time: 70s



Western blot - Anti-Tau antibody [EP2456Y] (ab76128)

Tau Western blot staining using rabbit Anti-Tau antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/1000,000 dilution.

In Western blot, Anti-Tau antibody [EP2456Y] - Total protein control (ab76128)(1/1000)(55KDa).

All lanes:
Western blot - Anti-Tau (phospho T217) antibody [EPR24654-24] (ab288160) at 1/1000 dilution

Lane 1:
Rat P14 brain (Untreated membrane) at 20 µg

Lane 2:
Rat P5 brain (Untreated membrane) at 20 µg

Lane 3:
Rat P5 hippocampus (Untreated membrane) at 20 µg

Lane 4:
Rat P14 brain (Phosphatase treated membrane) at 20 µg

Lane 5:
Rat P5 brain (Phosphatase treated membrane) at 20 µg

Lane 6:
Rat P5 hippocampus (Phosphatase treated membrane) at 20 µg

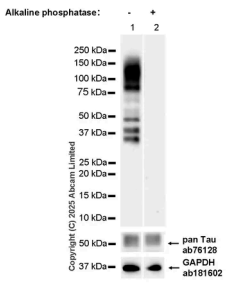
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 78 kDa

Observed band size: 50-80 kDa, 36 kDa, 55 kDa

Exposure time: 26s



Western blot - Anti-Tau antibody [EP2456Y] (ab76128)

Tau Western blot staining using rabbit Anti-Tau antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200,000 dilution.

In Western blot, Anti-Tau antibody [EP2456Y] (ab76128) (1/1000) (55KDa)

This blot was developed using a high-sensitivity ECL substrate, allowing for the detection of proteins in the mid femtogram range.

All lanes:
Western blot - Anti-Tau (phospho T217) antibody [EPR24654-110] (ab291080) at 1/1000 dilution

Lane 1:
Rat P0 brain (Untreated membrane) at 20 µg

Lane 2:
Rat P0 brain (Phosphatase treated membrane) at 20 µg

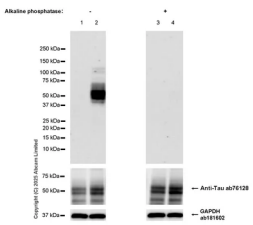
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Developed using the ECL technique.

Observed band size: 50-80 kDa, 36 kDa, 55 kDa

Exposure time: 180s



Western blot - Anti-Tau antibody [EP2456Y] (ab76128)

Tau Western blot staining using rabbit Anti-Tau antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

In Western blot, Anti-Tau antibody [EP2456Y] (ab76128) Total Protein Control at 1/1000 dilution.

All lanes:
Western blot - Anti-Tau (phospho S324) antibody [EPR2457(2)] (ab109401) at 1/1000 dilution

Lane 1:
Untreated mouse brain tissue lysate (untreated membrane) at 20 µg

Lane 2:
Mouse brain treated with 1µM Okadaic Acid and 200nM Calyculin A for 1 hour, tissue lysate (untreated membrane) at 20 µg

Lane 3:
Untreated mouse brain tissue lysate (alkaline phosphatase treated membrane) at 20 µg

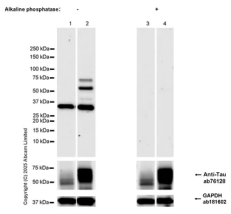
Lane 4:
Mouse brain treated with 1µM Okadaic Acid and 200nM Calyculin A for 1 hour, tissue lysate (alkaline phosphatase treated membrane) at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 48-60 kDa

Exposure time: 136s



Western blot - Anti-Tau antibody [EP2456Y] (ab76128)

Tau Western blot staining using rabbit Anti-Tau antibody

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

Anti-Tau antibody [EP2456Y] (ab76128) - Total Protein Control (ab76128) at 1/1000 dilution.

All lanes:
Western blot - Anti-Tau (phospho S235) antibody [EPR2452] (ab133253) at 1/1000 dilution

Lane 1:
Mouse brain tissue lysate (untreated membrane) at 20 µg

Lane 2:
Rat brain tissue lysate (untreated membrane) at 20 µg

Lane 3:
Mouse brain tissue lysate (alkaline phosphatase treated membrane) at 20 µg

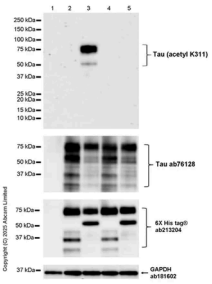
Lane 4:
Rat brain tissue lysate (alkaline phosphatase treated membrane) at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Observed band size: 35-80 kDa

Exposure time: 180s



Western blot - Anti-Tau antibody [EP2456Y] (ab76128)

Tau Western blot staining using rabbit Anti-Tau antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

In Western blot, Anti-Tau antibody [EP2456Y] - (ab76128) staining at 1/1000 dilution.

All lanes:
Western blot - Anti-Tau (acetyl K311) antibody [EPR29545-504] (ab324728) at 1/1000 dilution

Lane 1:
293T (human embryonic kidney epithelial cell) cells transfected with an empty vector containing a myc-His-tag, whole cell lysate at 4 µg

Lane 2:
293T cells transfected with a human 2N4R Tau (WT) expression vector containing a myc-His-tag®, whole cell lysate at 4 µg

Lane 3:
293T cells co-transfected with a human 2N4R Tau (WT) expression vector containing a myc-His-tag® and a human CBP HAT domain expression vector containing a myc-His-tag® whole cell lysate at 4 µg

Lane 4:
293T cells transfected with a human 2N4R Tau (K311R) expression vector containing a myc-His-tag®, whole cell lysate at 4 µg

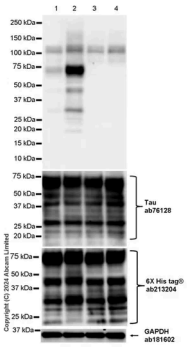
Lane 5:
293T cells co-transfected with a human 2N4R Tau (K311R) expression vector containing a myc-His-tag® and a human CBP HAT domain expression vector containing a myc-His-tag®, whole cell lysate at 4 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Observed band size: 70 kDa, 36 kDa

Exposure time: 180s



Western blot - Anti-Tau antibody [EP2456Y] (ab76128)

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID: 22366723, PMID: 24113653).

The expression of Tau (O-GlcNAc S400) is upregulated in response to Thiamet G treatment (PMID: 25336656, PMID: 22366723, PMID: 24113653).

The identity of the higher MW band at approximately 110 kDa is unknown.

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

In Western blot, Anti-Tau antibody - Total protein control (ab76128) staining at 1/1000 dilution.

In Western blot, Anti-Tau antibody - Total protein control Anti-6X His tag® antibody [EPR20547] - ChIP Grade (ab213204) staining at 1/5000 dilution
All lanes:
Western blot - Anti-Tau (O-GlcNAc S400) antibody [EPR24891-48] (ab320076) at 1/1000 dilution

Lane 1:
293T (human embryonic kidney epithelial cell) cells transfected with a human wild-type Tau 2N4R expression vector containing a myc-His-tag®, whole cell lysate at 50 µg

Lane 2:
293T cells transfected with a human wild-type Tau 2N4R expression vector containing a myc-His-tag® were treated with 10 uM Thiamet G for 48 hours, whole cell lysate at 50 µg

Lane 3:
293T cells transfected with a human Tau 2N4R (S400A mutation) expression vector containing a myc-His-tag®, whole cell lysate at 50 µg

Lane 4:
293T cells transfected with a human Tau 2N4R (S400A mutation) expression vector containing a myc-His-tag® were treated with 10 uM Thiamet G for 48 hours, whole cell lysate at 50 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 25-75 kDa, 36 kDa

Exposure time: 37s

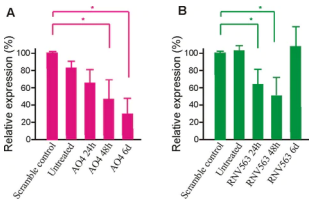


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Western blot - Anti-Tau antibody [EP2456Y] (ab76128)

Tau western blot using anti-Tau antibody [EP2456Y] ab76128. Publication image and figure legend from Chakravarthy, M., Chen, S., et al., 2020, Genes (Basel), PubMed 32575375.

ab76128 was used in this publication in western blot. This may not be the same as the application(s) guaranteed by Abcam. For a full list of applications guaranteed by Abcam for ab76128 please see the product overview.

(A) Densitometry analysis of the tau expression obtained from western blot (three replicates) analysis after the treatment of SH-SY5Y cells with AO4 at 50 nM concentrations and incubation of AO4 for 24 h, 48 h, and six days. SH-SY5Y cells were treated with the scrambled control at a 50 nM

concentration and incubation of six days. AO4 targets exon 4 of the MAPT transcript. The error bars represent the standard error of the mean. (B) Densitometry analysis of the tau expression obtained from western blot (three replicates) analysis after the treatment of SH-SY5Y cells with RNV563 at 400 nM concentrations and incubation of DNAzyme for 24 h, 48 h, and six days. SH-SY5Y cells were treated with the scrambled control at a 400 nM concentration and incubation of six days. RNV563 targets exon 9 of the MAPT transcript. The error bars represent the standard error of the mean.

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