abcam

Product datasheet

Anti-Tau (phospho S198) antibody [EPR2400] - BSA and Azide free ab156622

リコンビナント RabMAb

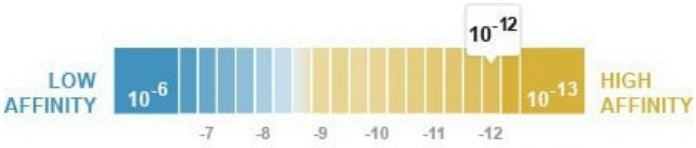
画像数 7

製品の概要

製品名	Anti-Tau (phospho S198) antibody [EPR2400] - BSA and Azide free
製品の詳細	Rabbit monoclonal [EPR2400] to Tau (phospho S198) - BSA and Azide free
由来種	Rabbit
特異性	The specificity of this antibody refers to P10636-8.
アプリケーション	**適用あり:** IP, WB, IHC-P
種交差性	**交差種:** Mouse, Rat, Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	WB: Mouse hippocampus and Rat hippocampus tissues. SH-SY5Y (cells treated with 1µM okadaic acid and 200nM calyculin a for 60 minutes) whole cell lysate. IP: SH-SY5Y cell lysate. IHC-P: Mouse cerebrum, Rat cerebrum, and Human breast cancer tissues.
特記事項	ab156622 is the carrier-free version of **ab79540**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C. Do Not Freeze.
解離定数（K_D 値）	$K_D = 1.20 \times 10^{-12}$ M



Learn more about K_D

バッファー	Constituent: 100% PBS
キャリア・フリー	はい
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EPR2400
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee Abpromise保証は、次のテスト済みアプリケーションにおけるab156622の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
IP		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 50-70 kDa (predicted molecular weight: 79 kDa).
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

ターゲット情報

機能

Promotes microtubule assembly and stability, and might be involved in the establishment and maintenance of neuronal polarity. 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. Axonal polarity is predetermined by tau 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.

組織特異性

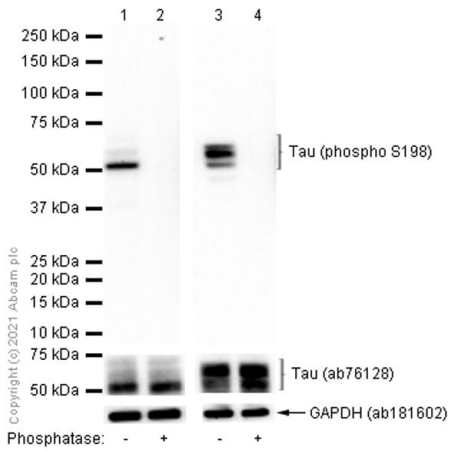
Expressed in neurons. Isoform PNS-tau is expressed in the peripheral nervous system while the others are expressed in the central nervous system.

関連疾患

Note=In Alzheimer disease, the neuronal cytoskeleton in the brain is progressively disrupted and replaced by tangles of paired helical filaments (PHF) and straight filaments, mainly composed of hyperphosphorylated forms of TAU (PHF-TAU or AD P-TAU).
Defects in MAPT are a cause of frontotemporal dementia (FTD) [MIM:600274]; also called frontotemporal dementia (FTD), pallido-ponto-nigral degeneration (PPND) or historically termed

	Pick complex. This form of frontotemporal dementia is characterized by presenile dementia with behavioral changes, deterioration of cognitive capacities and loss of memory. In some cases, parkinsonian symptoms are prominent. Neuropathological changes include frontotemporal atrophy often associated with atrophy of the basal ganglia, substantia nigra, amygdala. In most cases, protein tau deposits are found in glial cells and/or neurons. Defects in MAPT are a cause of Pick disease of the brain (PIDB) [MIM:172700]. It is a rare form of dementia pathologically defined by severe atrophy, neuronal loss and gliosis. It is characterized by the occurrence of tau-positive inclusions, swollen neurons (Pick cells) and argentophilic neuronal inclusions known as Pick bodies that disproportionally affect the frontal and temporal cortical regions. Clinical features include aphasia, apraxia, confusion, anomia, memory loss and personality deterioration. Note=Defects in MAPT are a cause of corticobasal degeneration (CBD). It is marked by extrapyramidal signs and apraxia and can be associated with memory loss. Neuropathologic features may overlap Alzheimer disease, progressive supranuclear palsy, and Parkinson disease. Defects in MAPT are a cause of progressive supranuclear palsy type 1 (PSNP1) [MIM:601104, 260540]; also abbreviated as PSP and also known as Steele-Richardson-Olszewski syndrome. PSNP1 is characterized by akinetic-rigid syndrome, supranuclear gaze palsy, pyramidal tract dysfunction, pseudobulbar signs and cognitive capacities deterioration. Neurofibrillary tangles and gliosis but no amyloid plaques are found in diseased brains. Most cases appear to be sporadic, with a significant association with a common haplotype including the MAPT gene and the flanking regions. Familial cases show an autosomal dominant pattern of transmission with incomplete penetrance; genetic analysis of a few cases showed the occurrence of tau mutations, including a deletion of Asn-613.
配列類似性	Contains 4 Tau/MAP repeats.
発生段階	Four-repeat (type II) tau is expressed in an adult-specific manner and is not found in fetal brain, whereas three-repeat (type I) tau is found in both adult and fetal brain.
ドメイン	The tau/MAP repeat binds to tubulin. Type I isoforms contain 3 repeats while type II isoforms contain 4 repeats.
翻訳後修飾	Phosphorylation at serine and threonine residues in S-P or T-P motifs by proline-directed protein kinases (PDPK: CDK1, CDK5, GSK-3, MAPK) (only 2-3 sites per protein in interphase, seven-fold increase in mitosis, and in PHF-tau), and at serine residues in K-X-G-S motifs by MAP/microtubule affinity-regulating kinase (MARK) in Alzheimer diseased brains. Phosphorylation decreases with age. Phosphorylation within tau's repeat domain or in flanking regions seems to reduce tau's interaction with, respectively, microtubules or plasma membrane components. Phosphorylation on Ser-610, Ser-622, Ser-641 and Ser-673 in several isoforms during mitosis. Polyubiquitinated. Requires functional TRAF6 and may provoke SQSTM1-dependent degradation by the proteasome (By similarity). PHF-tau can be modified by three different forms of polyubiquitination. 'Lys-48'-linked polyubiquitination is the major form, 'Lys-6'-linked and 'Lys-11'-linked polyubiquitination also occur. Glycation of PHF-tau, but not normal brain tau. Glycation is a non-enzymatic post-translational modification that involves a covalent linkage between a sugar and an amino group of a protein molecule forming ketoamine. Subsequent oxidation, fragmentation and/or cross-linking of ketoamine leads to the production of advanced glycation endproducts (AGES). Glycation may play a role in stabilizing PHF aggregation leading to tangle formation in AD.
細胞内局在	Cytoplasm > cytosol. Cell membrane. Cytoplasm > cytoskeleton. Cell projection > axon. Mostly found in the axons of neurons, in the cytosol and in association with plasma membrane components.
製品の状態	There are 9 isoforms produced by alternative splicing.

画像



Western blot - Anti-Tau (phospho S198) antibody [EPR2400] - BSA and Azide free (ab156622)

All lanes : Anti-Tau (phospho S198) antibody [EPR2400] (**ab79540**) at 1/10000 dilution (Purified)

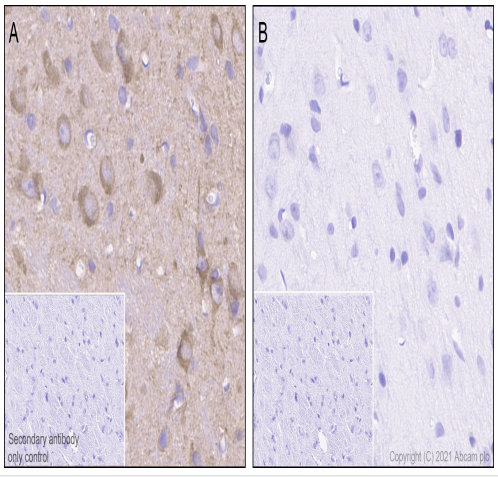
Lane 1 : Mouse hippocampus lysate
Lane 2 : Mouse hippocampus lysate, the membrane treated with Alkaline Phosphatase for 1 hour
Lane 3 : Rat hippocampus lysate
Lane 4 : Rat hippocampus lysate, the membrane treated with Alkaline Phosphatase for 1 hour

Lysates/proteins at 15 µg per lane.

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

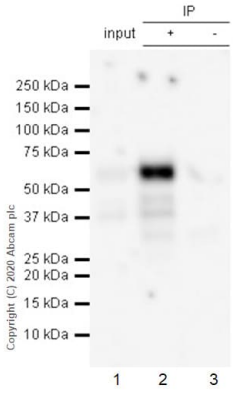
Predicted band size: 79 kDa
Observed band size: 50-70 kDa

This data was developed using **ab79540**, the same antibody clone in a different buffer formulation.



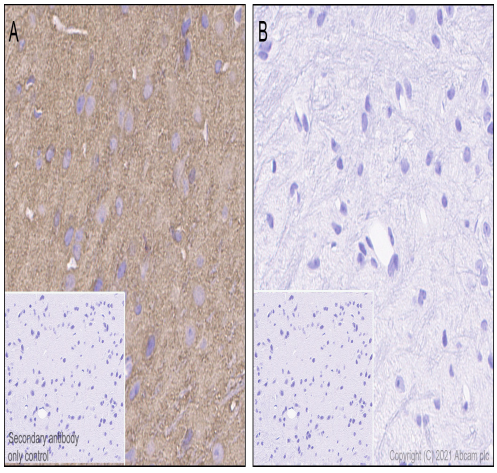
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tau (phospho S198) antibody [EPR2400] - BSA and Azide free (ab156622)

This data was developed using **ab79540**, the same antibody clone in a different buffer formulation.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat cerebrum tissue sections labeling Tau with purified **ab79540** at 1:1000 (0.423 µg/ml). Heat mediated antigen retrieval was performed using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control. Postive staining on rat cerebrum without alkaline phosphatase treatment (image A). No staining on rat cerebrum with alkaline phosphatase treatment (image B). The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Immunoprecipitation - Anti-Tau (phospho S198) antibody [EPR2400] - BSA and Azide free (ab156622)

This data was developed using **ab79540**, the same antibody clone in a different buffer formulation.
Purified **ab79540** at 1/50 dilution (2µg) immunoprecipitating Tau in SH-SY5Y whole cell lysate.
Lane 1 (input): SY-SY5Y (Human neuroblastoma epithelial cell) whole cell lysate 10µg
Lane 2 (+): **ab79540** + SH-SY5Y whole cell lysate.
Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of **ab79540** in SH-SY5Y whole cell lysate.
VeriBlot for IP Detection Reagent (HRP) (**ab131366**) (1/1000 dilution) was used for Western blotting.
Blocking Buffer and concentration: 5% NFDM/TBST.
Diluting buffer and concentration: 5% NFDM/TBST.
Observed band size: 50-70 kDa



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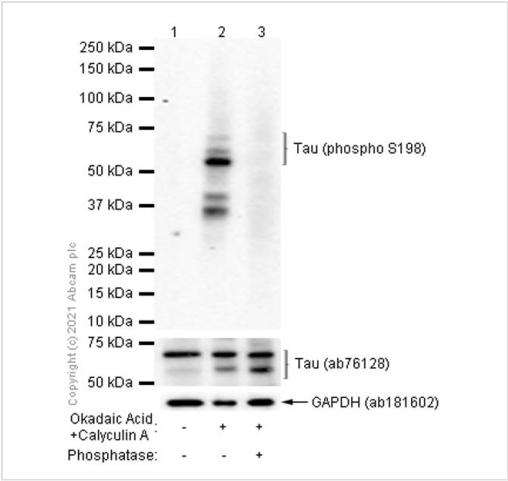

Western blot - Anti-Tau (phospho S198) antibody [EPR2400] - BSA and Azide free (ab156622)

All lanes : Anti-Tau (phospho S198) antibody [EPR2400] (**ab79540**) at 1/1000 dilution (Purified)

Lane 1 : Untreated SH-SY5Y (Human neuroblastoma epithelial cell) whole cell lysate
Lane 2 : SH-SY5Y treated with 1µM okadaic acid and 200nM calyculin a for 60 minutes, whole cell lysate
Lane 3 : SH-SY5Y treated with 1µM okadaic acid and 200nM calyculin a for 60 minutes whole cell lysate, then the membrane treated with Alkaline Phosphatase for 1 hour

Lysates/proteins at 15 µg per lane.

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

Predicted band size: 79 kDa
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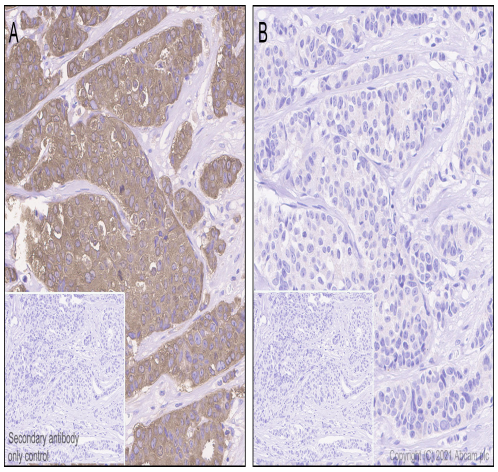
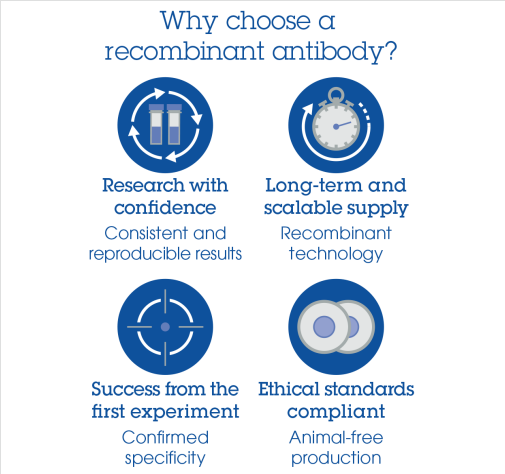


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tau (phospho S198) antibody [EPR2400] - BSA and Azide free (ab156622)

This data was developed using **ab79540**, the same antibody clone in a different buffer formulation.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast cancer tissue sections labeling Tau with purified **ab79540** at 1:1000 (0.423 µg/ml). Heat mediated antigen retrieval was performed using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control. Postive staining on human breast cancer without alkaline phosphatase treatment (image A). No staining on human breast cancer with alkaline phosphatase treatment (image B). The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Anti-Tau (phospho S198) antibody [EPR2400] - BSA and Azide free (ab156622)

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