# abcam

## Product datasheet

## Anti-Tau (phospho S262 + T263) antibody [EPR2454] ab92627

ועלשעבע RabMAb

8 References 画像数4

#### 製品の概要

製品名 Anti-Tau (phospho S262 + T263) antibody [EPR2454]

製品の詳細 Rabbit monoclonal [EPR2454] to Tau (phospho S262 + T263)

由来種 Rabbit

特異性 WB band is consistent with what is found in PMID 16682510 (Peng et. al.)

The specificity of this antibody refers to P10636-8.

アプリケーション 適用あり: Dot blot, ELISA, WB

適用なし: Flow Cyt,ICC/IF,IHC-P or IP

種交差性 交差種: 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 SH-SY5Y cell lysate treated with olcadaic acid and Calyculin A

特記事項 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 production

For more information see here.

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

Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

製品の特性

製品の状態

保存方法 Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.

解離定数(KD値)  $K_D = 1.00 \times 10^{-12} M$ 

HIGH

#### -9 -10 -11 -12

### Learn more about K<sub>D</sub>

**バッファー** pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA

精製度 Protein A purified

**ポリ/モノ** モノクローナル

**クローン名** EPR2454

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ab92627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
Dot blot		Use at an assay dependent concentration.
ELISA		Use at an assay dependent concentration.
WB		1/1000 - 1/2000. Predicted molecular weight: 79 kDa.

追加情報

Is unsuitable for Flow Cyt,ICC/IF,IHC-P or IP.

#### 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 presentle 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

発生段階

ドメイン

Contains 4 Tau/MAP repeats.

during mitosis.

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.

The tau/MAP repeat binds to tubulin. Type I isoforms contain 3 repeats while type II isoforms contain 4 repeats.

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, sevenfold 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

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.

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.

There are 9 isoforms produced by alternative splicing.

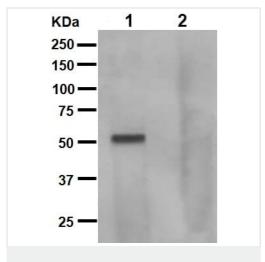
製品の状態

細胞内局在

画像

3

## 翻訳後修飾



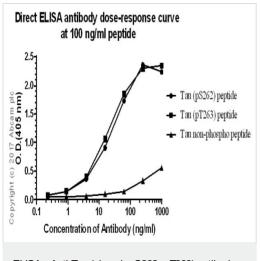
Western blot - Anti-Tau (phospho S262 + T263) antibody [EPR2454] (ab92627)

**All lanes :** Anti-Tau (phospho S262 + T263) antibody [EPR2454] (ab92627) at 1/2000 dilution

Lane 1 : SH-SY5Y cell lysate treated with Olcadaic acid & Calyculin

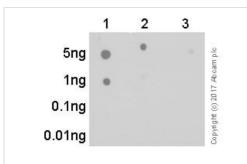
Lane 2: SH-SY5Y cell lysate untreated

Predicted band size: 79 kDa



ELISA - Anti-Tau (phospho S262 + T263) antibody [EPR2454] (ab92627)

Serially diluted ab92627 was bound to immobilised phospho S262, phospho T263 or non phospho Tau peptide (100 ng/mL). The antibody was detected by HRP-labelled goat anti-rabbit lgG (ab97051; diluted at 1:100,000) and signal was developed with ECL substrate.



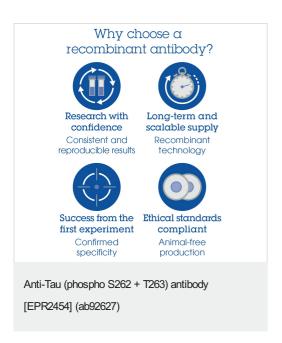
Dot Blot - Anti-Tau (phospho S262 + T263) antibody [EPR2454] (ab92627)

Dot blot analysis of Tau (pS262) peptide (Lane 1), Tau (pT263) peptide (Lane 2) and Tau non-phospho peptide (Lane 3) labelling Tau (pS262 + pT263) with ab92627 at a dilution of 1/1000.

ab97051 (Peroxidase conjugated goat anti-rabbit lgG (H+L)) was used as the secondary antibody at a dilution of 1/100,000.

Blocking and dilution buffer: 5% NFDM/TBST.

Exposure time: 30 seconds.



Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

## Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- · Extensive multi-media technical resources to help you
- · We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <a href="https://www.abcam.co.jp/abpromise">https://www.abcam.co.jp/abpromise</a> or contact our technical team.

#### Terms and conditions

· Guarantee only valid for products bought direct from Abcam or one of our authorized distributors