# abcam

# Product datasheet

# Anti-Presenilin 1/PS-1 antibody [EP2000Y] - BSA and Azide free ab227985



リコンピナント

RabMAb

9 References 画像数 3

#### 製品の概要

製品名 Anti-Presenilin 1/PS-1 antibody [EP2000Y] - BSA and Azide free

製品の詳細 Rabbit monoclonal [EP2000Y] to Presenilin 1/PS-1 - BSA and Azide free

由来種 Rabbit

特異性 The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for

mouse and rat.

アプリケーション 適用あり: WB, IHC-P

適用なし: Flow Cyt or ICC/IF

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: HeLa, Mouse brain, Rat brain cell, Human fetal brain lysate. IHC-P: Human liver.

特記事項 ab227985 is the carrier-free version of <u>ab76083</u>.

Our <u>carrier-free</u> 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 <u>conjugation kits</u> 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<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> is a trademark of Fluidigm Canada Inc.

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.

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

**バッファー** pH: 7.20

Constituent: 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 **ウローン名** EP2000Y

アイソタイプ lgG

# アプリケーション

**The Abpromise guarantee** <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab227985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
WB		Use at an assay dependent concentration. Predicted molecular weight: 53 kDa.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.  See IHC antigen retrieval protocols.  The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.

追加情報

Is unsuitable for Flow Cyt or ICC/IF.

#### ターゲット情報

#### 機能

Probable catalytic subunit of the gamma-secretase complex, an endoprotease complex that catalyzes the intramembrane cleavage of integral membrane proteins such as Notch receptors and APP (beta-amyloid precursor protein). Requires the other members of the gamma-secretase complex to have a protease activity. May play a role in intracellular signaling and gene expression or in linking chromatin to the nuclear membrane. Stimulates cell-cell adhesion though its association with the E-cadherin/catenin complex. Under conditions of apoptosis or calcium influx, cleaves E-cadherin promoting the disassembly of the E-cadherin/catenin complex and increasing the pool of cytoplasmic beta-catenin, thus negatively regulating Wnt signaling. May also play a role in hematopoiesis.

# 組織特異性

Expressed in a wide range of tissues including various regions of the brain, liver, spleen and

lymph nodes.

#### 関連疾患

Defects in PSEN1 are a cause of Alzheimer disease type 3 (AD3) [MIM:607822]. AD3 is a familial early-onset form of Alzheimer disease. Alzheimer disease is a neurodegenerative disorder characterized by progressive dementia, loss of cognitive abilities, and deposition of fibrillar amyloid proteins as intraneuronal neurofibrillary tangles, extracellular amyloid plaques and vascular amyloid deposits. The major constituent of these plaques is the neurotoxic amyloid-beta-APP 40-42 peptide (s), derived proteolytically from the transmembrane precursor protein APP by sequential secretase processing. The cytotoxic C-terminal fragments (CTFs) and the caspase-cleaved products such as C31 derived from APP, are also implicated in neuronal death. Defects in PSEN1 are a cause of frontotemporal dementia [MIM:600274].

Defects in PSEN1 are the cause of cardiomyopathy dilated type 1U (CMD1U) [MIM:613694]. It is a disorder characterized by ventricular dilation and impaired systolic function, resulting in congestive heart failure and arrhythmia. Patients are at risk of premature death.

Defects in PSEN1 are the cause of acne inversa familial type 3 (ACNIF3) [MIM:613737]. A chronic relapsing inflammatory disease of the hair follicles characterized by recurrent draining sinuses, painful skin abscesses, and disfiguring scars. Manifestations typically appear after

puberty.

**配列類似性** Belongs to the peptidase A22A family.

ドメイン The PAL motif is required for normal active site conformation.

翻訳後修飾 Heterogeneous proteolytic processing generates N-terminal (NTF) and C-terminal (CTF)

fragments of approximately 35 and 20 kDa, respectively. During apoptosis, the C-terminal fragment (CTF) is further cleaved by caspase-3 to produce the fragment, PS1-CTF12.

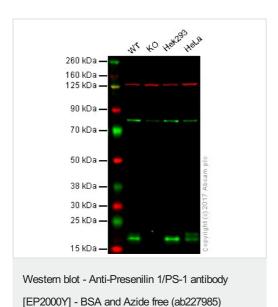
After endoproteolysis, the C-terminal fragment (CTF) is phosphorylated on serine residues by

PKA and/or PKC. Phosphorylation on Ser-346 inhibits endoproteolysis.

細胞内局在

Endoplasmic reticulum membrane. Golgi apparatus membrane. Cell surface. Bound to NOTCH1 also at the cell surface. Colocalizes with CDH1/2 at sites of cell-cell contact. Colocalizes with CTNNB1 in the endoplasmic reticulum and the proximity of the plasma membrane. Also present in azurophil granules of neutrophils.

# 画像



**All lanes :** Anti-Presenilin 1/PS-1 antibody [EP2000Y] (**ab76083**) at 1/5000 dilution

Lane 1: Wild-type HAP1 whole cell lysate

Lane 2 : Presenilin 1/PS-1 knockout HAP1 whole cell lysate

Lane 3: HEK293 whole cell lysate

Lane 4: HeLa whole cell lysate

Lysates/proteins at 20  $\mu g$  per lane.

Predicted band size: 53 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab76083

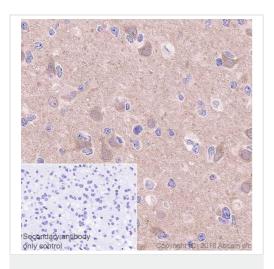
observed at 18 kDa. Red - loading control, **ab18058**, observed at 130 kDa.

ab76083 was shown to recognize Presenilin 1/PS-1 in wild-type HAP1 cells as signal was lost at the expected MW in Presenilin 1/PS-1 knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and Presenilin 1/PS-1 knockout samples were subjected to SDS-PAGE. Ab76083 and ab18058 (Mouse anti-Vinculin loading control) were incubated overnight at 4°C at 1/5000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit lgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse lgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.

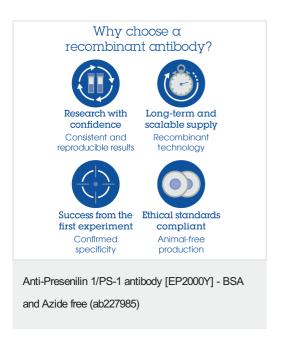
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76083).

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human glioma tissue sections labeling Presenilin 1/PS-1 with Purified <a href="mailto:ab76083">ab76083</a> at 1:100 dilution (1.31 µg/ml). Heat mediated antigen retrieval was performed using <a href="mailto:ab93684">ab93684</a> (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control:PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76083).



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Presenilin 1/PS-1 antibody [EP2000Y] - BSA and Azide free (ab227985)



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