

Anti-Presenilin 1/PS-1 antibody [EP2000Y] ab76083

敲除验证
重组
RabMAb

★★★★☆
[5 Abreviews](#)
[37 References](#)
[5 图像](#)

概述

产品名称	Anti-Presenilin 1/PS-1 抗体[EP2000Y]
描述	兔单克隆抗体[EP2000Y] to Presenilin 1/PS-1
宿主	Rabbit
特异性	The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
经测试应用	适用于: WB, IHC-P 不适用于: Flow Cyt or ICC/IF
种属反应性	与反应: Mouse, Rat, Human
免疫原	Synthetic peptide within Human Presenilin 1/PS-1 aa 300-400. The exact sequence is proprietary. Database link: P49768
阳性对照	WB: HeLa, Mouse brain, Rat brain cell, Human fetal brain lysate. IHC-P: Human liver.
常规说明	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> - 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 .

性能

形式	Liquid
存放说明	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
存储溶液	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol, 0.05% BSA
纯度	Protein A purified

克隆	单克隆
克隆编号	EP2000Y
同种型	IgG

应用

The Abpromise guarantee **Abpromise™**承诺保证使用ab76083于以下的经测试应用

“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB	★★★★★ (3)	1/1000 - 1/5000. Predicted molecular weight: 53 kDa.
IHC-P		1/100. 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.

应用说明 Is unsuitable for Flow Cyt or ICC/IF.

靶标

功能 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 through 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.

组织特异性 Expressed in a wide range of tissues including various regions of the brain, liver, spleen and lymph nodes.

疾病相关 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.

序列相似性

Belongs to the peptidase A22A family.

结构域

The PAL motif is required for normal active site conformation.

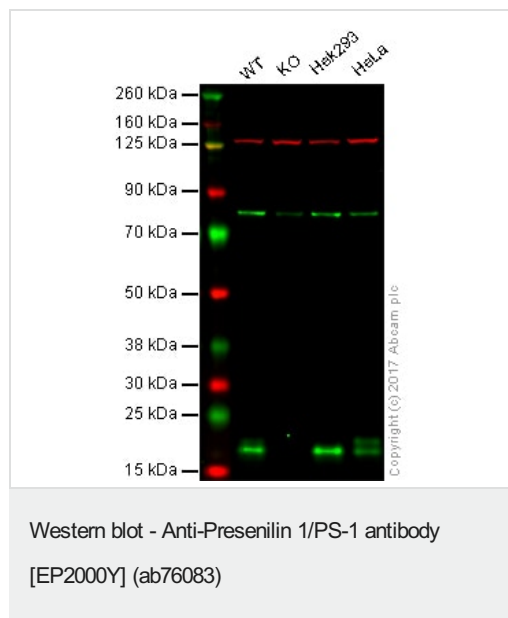
翻译后修饰

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.

细胞定位

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 azurophilic granules of neutrophils.

图片



Lane 1: Wild-type HAP1 whole cell lysate (20 µg)

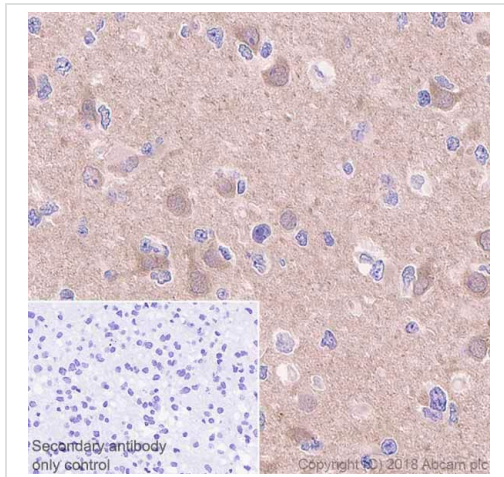
Lane 2: Presenilin 1 knockout HAP1 whole cell lysate (20 µg)

Lane 3: HEK293 whole cell lysate (20 µg)

Lane 4: HeLa whole cell lysate (20 µg)

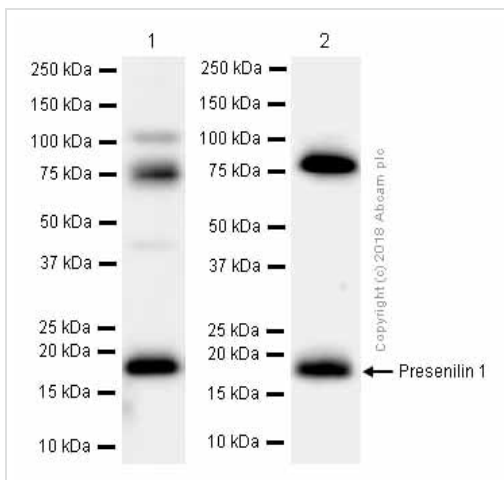
Lanes 1 - 4: Merged signal (red and green). Green - ab76083 observed at 18 kDa. Red - loading control, **ab18058**, observed at 130 kDa.

ab76083 was shown to recognize Presenilin 1 in wild-type HAP1 cells as signal was lost at the expected MW in Presenilin 1 knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and Presenilin 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 IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Presenilin 1/PS-1 antibody [EP2000Y] (ab76083)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human glioma tissue sections labeling Presenilin 1/PS-1 with Purified ab76083 at 1:100 dilution (1.31 µg/ml). Heat mediated antigen retrieval was performed using **ab93684** (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.



Western blot - Anti-Presenilin 1/PS-1 antibody [EP2000Y] (ab76083)

All lanes : Anti-Presenilin 1/PS-1 antibody [EP2000Y] (ab76083) at 1/1000 dilution

Lane 1 : Mouse brain lysates

Lane 2 : Rat brain lysates

Lysates/proteins at 15 µg per lane.

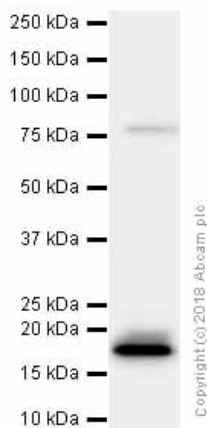
Secondary

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

Predicted band size: 53 kDa

Observed band size: 18 kDa

The 18 KD band is the C-terminal fragment after proteolytic process reported by PMID 9173929. But we are not sure how to define the extra band around 75 KD.



Western blot - Anti-Presenilin 1/PS-1 antibody [EP2000Y] (ab76083)

Anti-Presenilin 1/PS-1 antibody [EP2000Y] (ab76083) at 1/1000 dilution (Purified) + Human fetal brain lysates at 15 µg

Secondary

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

Predicted band size: 53 kDa

Observed band size: 18 kDa

The 18 KD band is the C-terminal fragment after proteolytic process reported by PMID 9173929.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Presenilin 1/PS-1 antibody [EP2000Y] (ab76083)

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