abcam

Product datasheet

Anti-Presenilin 1/PS-1 antibody [APS 18] ab15458

3 References 7 图像

概述

产品名称	Anti-Presenilin 1/PS-1抗体[APS 18]
描述	**小鼠单克隆抗体**[APS 18] to Presenilin 1/PS-1
宿主	Mouse
经测试应用	**适用于:** WB, IHC-P, ICC/IF
种属反应性	**与反应:** Mouse, Human **预测可用于:** Cynomolgus monkey
免疫原	Synthetic peptide corresponding to Human Presenilin 1/PS-1 aa 300-400. Database link: **P49768** Run BLAST with Run BLAST with
阳性对照	WB: T-47D, MCF7, Daudi, SH-SY5Y, Caco-2 cell lysate. IHC-P: Human liver and tonsil tissue. ICC: MCF-7 cells, A2058 melanoma cells, mouse fibroblasts and HeLa cells.
常规说明	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
存储溶液	Preservative: 0.05% Sodium azide Constituents: 99% PBS, 0.1% BSA
纯度	Protein G purified
克隆	单克隆
克隆编号	APS 18
同种型	IgG1

应用

The Abpromise guarantee **Abpromise™承诺保证使用ab15458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		1/500. Predicted molecular weight: 53 kDa.
IHC-P		1/20 - 1/200.
ICC/IF		1/50 - 1/200.

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 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.

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.

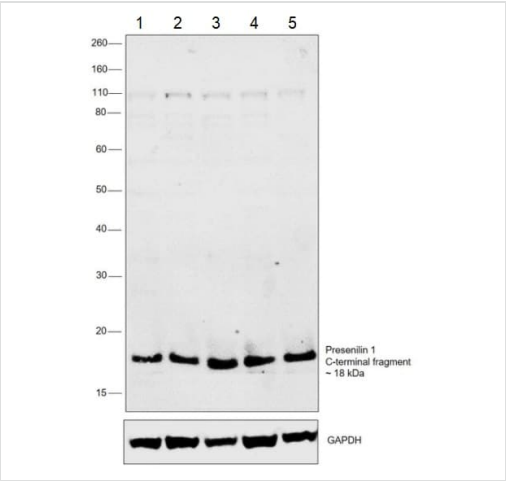
结构域 The PAL motif is required for normal active site conformation.

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 azurophil granules of neutrophils.

图片



Western blot - Anti-Presenilin 1/PS-1 antibody [APS 18] (ab15458)

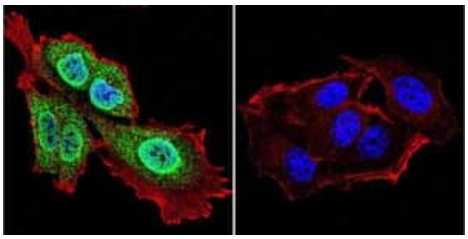
All lanes : Anti-Presenilin 1/PS-1 antibody [APS 18] (ab15458) at 1/500 dilution

Lane 1 : T-47D (human ductal breast epithelial tumor cell line) whole cell lysate
Lane 2 : MCF7 (human breast adenocarcinoma cell line) whole cell lysate
Lane 3 : Daudi (human Burkitt's lymphoma cell line) whole cell lysate
Lane 4 : SH-SY5Y (human neuroblastoma cell line from bone marrow) whole cell lysate
Lane 5 : Caco-2 (human colorectal adenocarcinoma cell line) whole cell lysate

Lysates/proteins at 30 µg per lane.

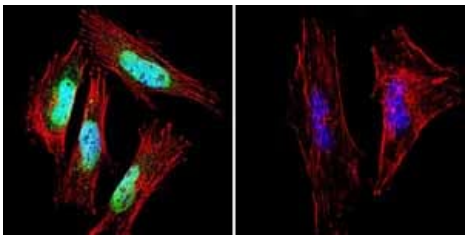
Secondary
All lanes : Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, HRP at 1/4000 dilution

Predicted band size: 53 kDa



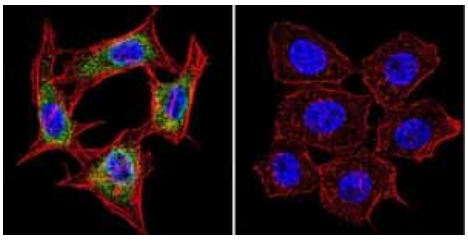
Immunocytochemistry/ Immunofluorescence - Anti-Presenilin 1/PS-1 antibody [APS 18] (ab15458)

Immunofluorescent analysis of Presenilin 1 / PS-1 using Presenilin 1 / PS-1 Monoclonal antibody (APS 18) **ab115458** shows staining in MCF-7 cells. Presenilin 1 / PS-1 staining (green) F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with or an antibody recognizing Presenilin 1 / PS-1 **ab115458** at a dilution of 1:20-1:100 over night at 4 ?C washed with PBS and incubated with a DyLight-488 conjugated secondary antibody. Images were taken at 60X magnification.



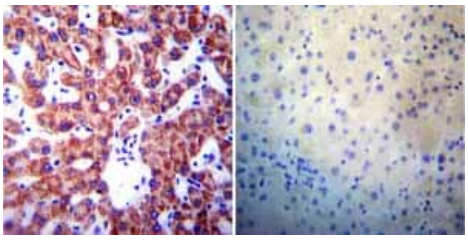
Immunocytochemistry/ Immunofluorescence - Anti-Presenilin 1/PS-1 antibody [APS 18] (ab15458)

Immunofluorescent analysis of Presenilin 1 / PS-1 using Presenilin 1 / PS-1 Monoclonal antibody (APS 18) **ab115458** shows staining in A2058 melanoma cells. Presenilin 1 / PS-1 staining (green) F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with or an antibody recognizing Presenilin 1 / PS-1 **ab115458** at a dilution of 1:20-1:100 over night at 4 ?C washed with PBS and incubated with a DyLight-488 conjugated secondary antibody. Images were taken at 60X magnification.



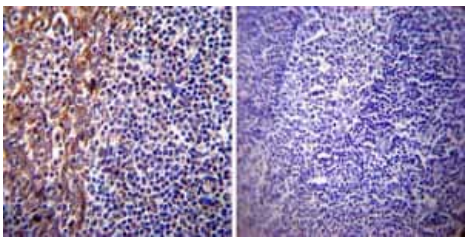
Immunocytochemistry/ Immunofluorescence - Anti-Presenilin 1/PS-1 antibody [APS 18] (ab15458)

Immunofluorescent analysis of Presenilin 1 / PS-1 using Presenilin 1 / PS-1 Monoclonal antibody (APS 18) **ab115458** shows staining in HeLa cells. Presenilin 1 / PS-1 staining (green) F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with or an antibody recognizing Presenilin 1 / PS-1 **ab115458** at a dilution of 1:20-1:100 over night at 4 ?C washed with PBS and incubated with a DyLight-488 conjugated secondary antibody. Images were taken at 60X magnification.



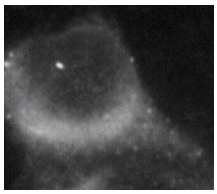
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Presenilin 1/PS-1 antibody [APS 18] (ab15458)

Immunohistochemistry was performed on normal biopsies of deparaffinized Human liver tissue. To expose target proteins heat induced antigen retrieval was performed using 10mM sodium citrate (pH6.0) buffer microwaved for 8-15 minutes. Following antigen retrieval tissues were blocked in 3% BSA-PBS for 30 minutes at room temperature. Tissues were then probed at a dilution of 1:200 with a mouse monoclonal antibody recognizing Presenilin 1 / PS-1 ab15458 or without primary antibody (negative control) overnight at 4°C in a humidified chamber. Tissues were washed extensively with PBST and endogenous peroxidase activity was quenched with a peroxidase suppressor. Detection was performed using a biotin-conjugated secondary antibody and SA-HRP followed by colorimetric detection using DAB. Tissues were counterstained with hematoxylin and prepped for mounting.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Presenilin 1/PS-1 antibody [APS 18] (ab15458)

Immunohistochemistry was performed on normal biopsies of deparaffinized Human tonsil tissue. To expose target proteins heat induced antigen retrieval was performed using 10mM sodium citrate (pH6.0) buffer microwaved for 8-15 minutes. Following antigen retrieval tissues were blocked in 3% BSA-PBS for 30 minutes at room temperature. Tissues were then probed at a dilution of 1:20 with a mouse monoclonal antibody recognizing Presenilin 1 / PS-1 ab15458 or without primary antibody (negative control) overnight at 4°C in a humidified chamber. Tissues were washed extensively with PBST and endogenous peroxidase activity was quenched with a peroxidase suppressor. Detection was performed using a biotin-conjugated secondary antibody and SA-HRP followed by colorimetric detection using DAB. Tissues were counterstained with hematoxylin and prepped for mounting.



Immunocytochemistry/ Immunofluorescence - Anti-Presenilin 1/PS-1 antibody [APS 18] (ab15458)

IF showing PS1 in mouse fibroblasts using ab15458.

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