


Product datasheet

Anti-PEN2 antibody ab18189

★★★★★ 5 Abreviews 8 References 2 Images

Overview

Product name	Anti-PEN2 antibody
Description	Rabbit polyclonal to PEN2
Host species	Rabbit
Specificity	ab18189 specifically detects mouse 12kDa Pen2 protein in lung lysate. A number of higher MW bands are also detected (~50 and ~100kDa bands) which may be because a proportion of Pen2 is found bound to components of the gamma secretase complex (see the Relevance section). All bands detected with ab18189 in mouse lung lysate were blocked with the immunising peptide ab19147 . Human Pen2 protein was also detected (weakly) in lung lysates with ab18189 (2ug/ml) in our hands and all detected bands blocked by immunising peptide ab19147 .
Tested applications	Suitable for: WB, ICC/IF
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Rat 
Immunogen	Synthetic peptide conjugated to KLH derived from within residues 1 - 100 of Human PEN2. Read Abcam's proprietary immunogen policy (Peptide available as ab19147 .)
Positive control	For endogenous sample testing in (e.g. in lung, spleen or brain tissue), it is suggested that the investigator load a greater amount of protein on the gel and combine immunoprecipitation with Western blot analysis. This antibody gave a positive result in HeLa cell line in ICC/IF
General notes	<p>PEN2 is a functional component of the gamma-secretase complex; coimmunoprecipitation of endogenous PEN2 and PS1 fragments using PS1 antibodies has been reported (Steiner et al, 2002).</p> <p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.</p> <p>In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications & species that this product has been "predicted to work</p>

with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

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, as well as customer reviews and Q&As.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS
	Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.
Purity	Immunogen affinity purified
Primary antibody notes	PEN2 is a functional component of the gamma-secretase complex; coimmunoprecipitation of endogenous PEN2 and PS1 fragments using PS1 antibodies has been reported (Steiner et al, 2002).
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab18189** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

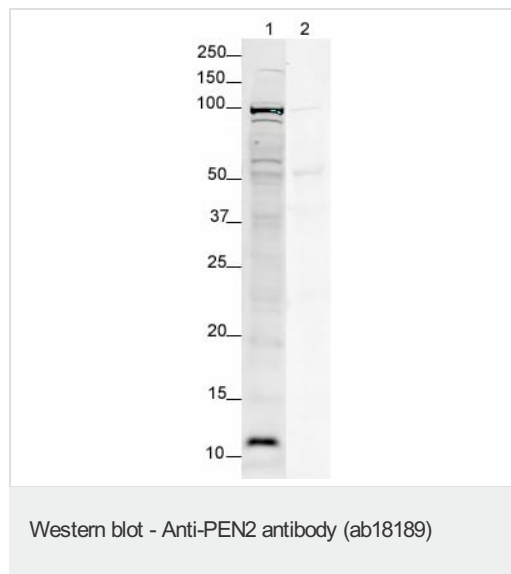
Application	Abreviews	Notes
WB	★★★★★	Use a concentration of 2 µg/ml. Detects a band of approximately 11.9 kDa (predicted molecular weight: 12 kDa).
ICC/IF		Use a concentration of 1 µg/ml.

Target

Function	Essential 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). Probably represents the last step of maturation of gamma-secretase, facilitating endoproteolysis of presenilin and conferring gamma-secretase activity.
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Tissue specificity	Widely expressed. Expressed in leukocytes, lung, placenta, small intestine, liver, kidney, spleen thymus, skeletal muscle, heart and brain.
Sequence similarities	Belongs to the PEN-2 family.
Cellular localization	Endoplasmic reticulum membrane. Golgi apparatus > Golgi stack membrane. Predominantly located in the endoplasmic reticulum and in the cis-Golgi.

Images



All lanes : Anti-PEN2 antibody (ab18189) at 2 µg/ml

Lane 1 : Mouse Lung Lysate

Lane 2 : Mouse Lung Lysate with Human PEN2 peptide ([ab19147](#)) at 1 µg/ml

Lysates/proteins at 20 µg per lane.

Secondary

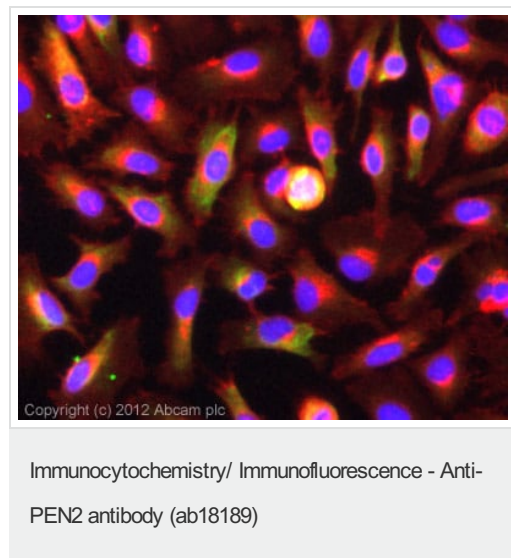
All lanes : Alexa Fluor Goat polyclonal to Rabbit at 1/10000 dilution

Performed under reducing conditions.

Predicted band size: 12 kDa

Observed band size: 12 kDa

Additional bands at: 50-60 kDa, 95-100 kDa. We are unsure as to the identity of these extra bands.



ICC/IF image of ab18189 stained HeLa cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab18189, 5µg/ml) overnight at +4°C. The secondary antibody (green) was [ab96899](#), DyLight® 488 goat anti-rabbit IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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

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