

Product datasheet

Anti-PDE4D antibody ab87329

2 Images

Overview

Product name	Anti-PDE4D antibody
Description	Rabbit polyclonal to PDE4D
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, WB
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide corresponding to Human PDE4D aa 750 to the C-terminus conjugated to keyhole limpet haemocyanin. (Peptide available as ab97991)
Positive control	This antibody gave a positive signal in Human lung tissue lysate as well as the following whole cell lysates: DU145; A549.
General notes	<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 with,” however this information is not covered by our Abpromise guarantee.</p> <p>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.</p> <p>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.</p>

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
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab87329** in the following tested applications.

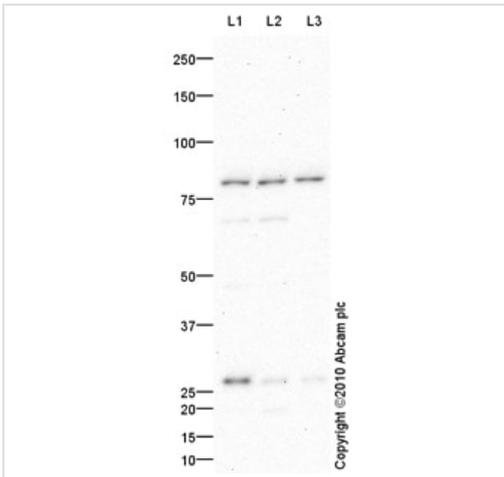
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use a concentration of 5 µg/ml.
WB		1/250. Detects a band of approximately 81 kDa (predicted molecular weight: 91 kDa).

Target

Function	Hydrolyzes the second messenger cAMP, which is a key regulator of many important physiological processes.
Tissue specificity	Widespread; most abundant in skeletal muscle. Isoform 6 is detected in brain. Isoform 8 is detected in brain, placenta, lung and kidney. Isoform 7 is detected in heart and skeletal muscle.
Pathway	Purine metabolism; 3',5'-cyclic AMP degradation; AMP from 3',5'-cyclic AMP: step 1/1.
Involvement in disease	Note=Genetic variations in PDE4D might be associated with susceptibility to stroke. PubMed:17006457 states that association with stroke has to be considered with caution.
Sequence similarities	Belongs to the cyclic nucleotide phosphodiesterase family. PDE4 subfamily.
Post-translational modifications	Isoform 3 and isoform 7 are activated by phosphorylation (in vitro), but not isoform 6. Isoform N3 and isoform 12 are phosphorylated on Ser-49, Ser-51, Ser-55 and Ser-59.
Cellular localization	Cytoplasm. Membrane. Cytoplasm > cytoskeleton. Cytoplasm > cytoskeleton > centrosome. Found in the soluble fraction, associated with membranes, and associated with the cytoskeleton and the centrosome.

Images



Western blot - Anti-PDE4D antibody (ab87329)

All lanes : Anti-PDE4D antibody (ab87329) at 1 µg/ml

Lane 1 : DU 145 (Human prostate carcinoma cell line) Whole Cell Lysate

Lane 2 : Lung (Human) Tissue Lysate

Lane 3 : A549 (Human lung adenocarcinoma epithelial cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 91 kDa

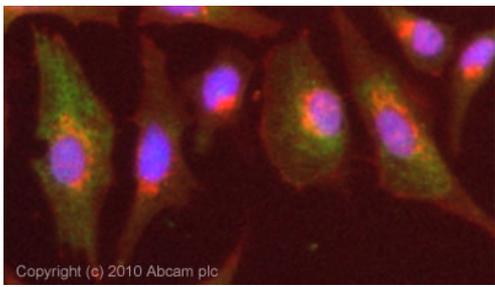
Observed band size: 81 kDa

[why is the actual band size different from the predicted?](#)

Additional bands at: 28 kDa, 70 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 20 minutes

The predicted molecular weight of Human cAMP-specific 3',5'-cyclic phosphodiesterase 4D is 71 kDa(SwissProt), however we expect to observe a banding pattern at 81 kDa. Abcam welcomes customer feedback and would appreciate any comments regarding this product and the data presented above.



Immunocytochemistry/ Immunofluorescence - Anti-PDE4D antibody (ab87329)

ICC/IF image of ab87329 stained HeLa cells. The cells were 4% PFA fixed (10 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 (ab87329, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 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. This antibody also gave a positive result in 100% methanol fixed (5 min) HeLa cells at 5µg/ml.

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

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