

Anti-PDE4D antibody ab14613

★★★★★ [2 Abreviews](#) [18 References](#) [2 Images](#)

Overview

Product name	Anti-PDE4D antibody
Description	Rabbit polyclonal to PDE4D
Host species	Rabbit
Specificity	ab14613 labels all PDE4D proteins including PDE4D1, PDE4D2, PDE4D3, PDE4D4, PDE4D5 variants. Does not cross react with PDE4A, PDE4B, PDE4D6, PDE4D7, PDE4D8, PDE4D9 or PDE4C. The antibody has not been tested against endogenous PDE4D, only recombinant proteins and we therefore cannot guarantee it will detect endogenous PDE4.
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide corresponding to PDE4D. C-terminal cyclic peptide unique to all PDE4D subtypes variants. (Peptide available as ab169991)
General notes	<p>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.</p> <p>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</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	Preservative: 0.02% Sodium azide
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab14613 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	★★★★★ (1)	1/500.
IHC-P		Use at an assay dependent concentration.

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.

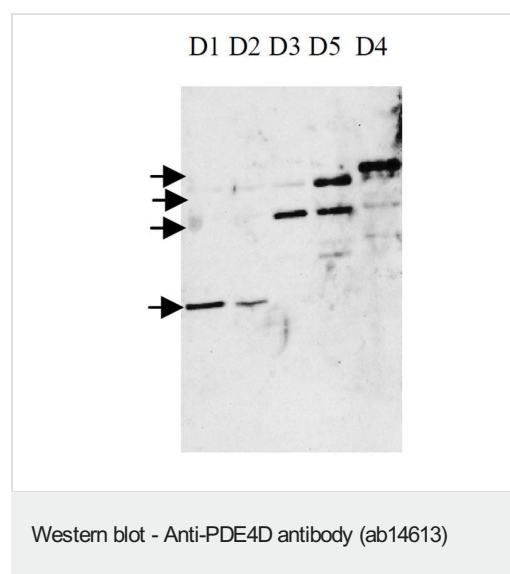
Post-translational modifications

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.

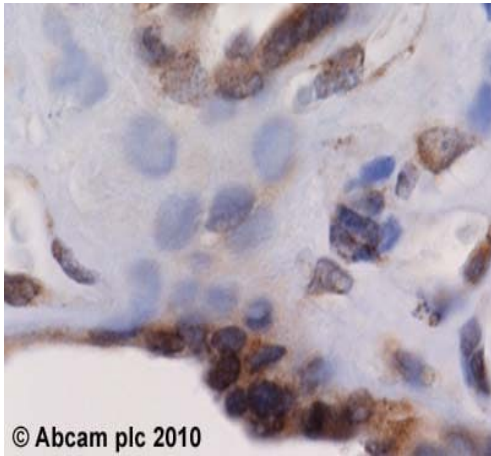
Cellular localization

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 using ab14613 and positive controls for PDE4D variants.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PDE4D antibody (ab14613)

ab14613 (2µg/ml) staining PDE4D in human placenta using an automated system (DAKO Autostainer Plus). Using this protocol there is strong staining of the cytoplasm.

Sections were rehydrated and antigen retrieved with the Dako 3 in 1 AR buffer EDTA pH 9.0 in a DAKO PT link. Slides were peroxidase blocked in 3% H₂O₂ in methanol for 10 mins. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 min and detected with Dako envision flex amplification kit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that, for manual staining, optimization of primary antibody concentration and incubation time is recommended. Signal amplification may be required.

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

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