

### Anti-PDE4 antibody ab14628

[17 References](#) [2 Images](#)

#### Overview

<b>Product name</b>	Anti-PDE4 antibody
<b>Description</b>	Rabbit polyclonal to PDE4
<b>Host species</b>	Rabbit
<b>Specificity</b>	This antibody detects all known PDE4 A and D variants including PDE4A1, A5, Ax, A8 and PDE4D1-D5. It has low affinity for PDE4B variants.
<b>Tested applications</b>	<b>Suitable for:</b> WB, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	Rat brain.
<b>General notes</b>	<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&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	Preservative: 0.02% Thimerosal (merthiolate)
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

#### Applications

The **Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab14628 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 at an assay dependent dilution.
ICC/IF		Use a concentration of 1 µg/ml.

Target

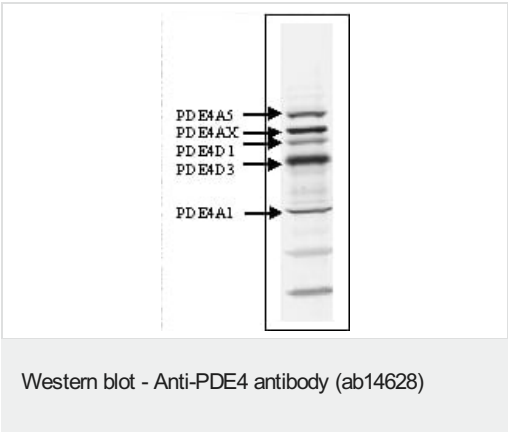
Relevance

The cAMP-specific Phosphodiesterase type 4 (PDE4) family is comprised of 4 genes (PDE4 A, B, C and D) with multiple splice variants generated by RNA splicing and use of alternate initiation sites. The cAMP-dependent protein kinase A modulates the enzyme activity of some PDE4 family members by phosphorylation / dephosphorylation mechanisms. Such short-term regulatory mechanisms are necessary for rapid changes in the cAMP levels in cells. PDE4 family selective inhibitor, rolipram inhibits all members of the PDE4 family. In rodents inhibition of PDE4 enzymes by rolipram attenuated short- and long-term memory impairment produced by the administration of scopolamine and MK801. Interaction of these enzymes with cellular scaffolding proteins plays important role in PDE4 compartmentalization and cAMP-dependent signaling.

Cellular localization

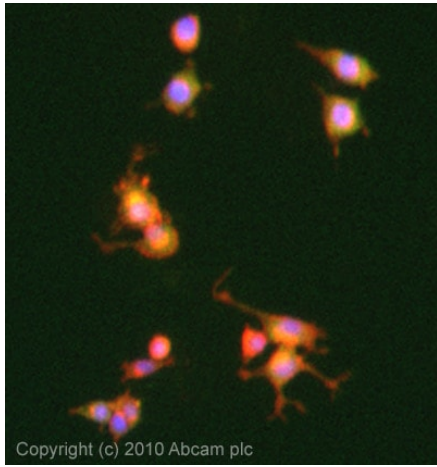
Cell Membrane

Images



ab 14628 detecting 3 isoforms of PDE4A subclasses (PDE4A1, PDE4A5 and PDE4Ax), two isoforms of PDE4D (PDE4D1, PDE4D3) in rat brain by Western blot.

ab 14628 detecting 3 isoforms of PDE4A subclasses (PDE4A1, PDE4A5 and PDE4Ax) and two isoforms of PDE4D (PDE4D1, PDE4D3) in rat brain by Western blot.



ICC/IF image of ab14628 stained PC12 cells. The cells were 4% formaldehyde 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 (ab14628, 1µg/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.

Immunocytochemistry/ Immunofluorescence - Anti-PDE4 antibody (ab14628)

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

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