


Product datasheet

Anti-PDE5A/PDE5 antibody ab64179

★★★★★ [5 Abreviews](#) [15 References](#) [4 Images](#)

Overview

Product name	Anti-PDE5A/PDE5 antibody
Description	Rabbit polyclonal to PDE5A/PDE5
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, ICC/IF
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Rat, Horse, Chicken, Dog, Chimpanzee 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: MCF7 cells. ICC: MCF7 cells. IHC-P: Human heart tissue.
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	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

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab64179 in the following tested applications.

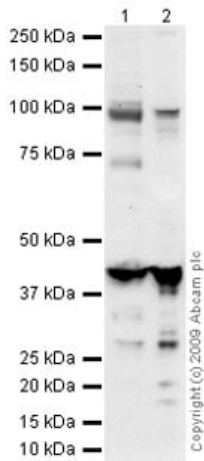
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (4)	Use a concentration of 1 µg/ml. Detects a band of approximately 100 kDa (predicted molecular weight: 100 kDa).
IHC-P		Use a concentration of 5 µg/ml.
ICC/IF	★★★★★ (1)	Use a concentration of 1 µg/ml.

Target

Function	Plays a role in signal transduction by regulating the intracellular concentration of cyclic nucleotides. This phosphodiesterase catalyzes the specific hydrolysis of cGMP to 5'-GMP.
Tissue specificity	Expressed in aortic smooth muscle cells, heart, placenta, skeletal muscle and pancreas and, to a much lesser extent, in brain, liver and lung.
Pathway	Purine metabolism; 3',5'-cyclic GMP degradation; GMP from 3',5'-cyclic GMP: step 1/1.
Sequence similarities	Belongs to the cyclic nucleotide phosphodiesterase family. Contains 2 GAF domains.
Domain	Composed of a C-terminal catalytic domain containing two putative divalent metal sites and an N-terminal regulatory domain which contains two homologous allosteric cGMP-binding regions, A and B.
Post-translational modifications	Phosphorylation is regulated by binding of cGMP to the two allosteric sites.

Images



Western blot - Anti-PDE5A/PDE5 antibody (ab64179)

All lanes : Anti-PDE5A/PDE5 antibody (ab64179) at 1 µg/ml

Lane 1 : Mouse skeletal muscle tissue lysate - total protein ([ab29711](#))

Lane 2 : Human ovary tissue lysate - total protein ([ab30222](#))

Lysates/proteins at 10 µg per lane.

Secondary

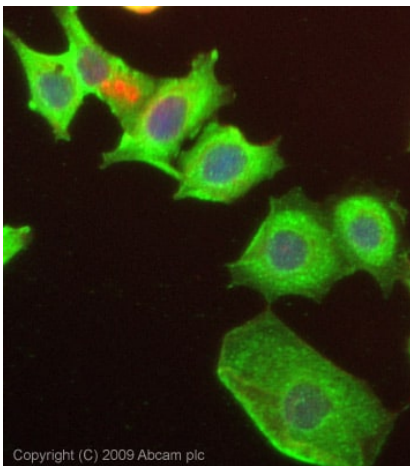
All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Performed under reducing conditions.

Predicted band size: 100 kDa

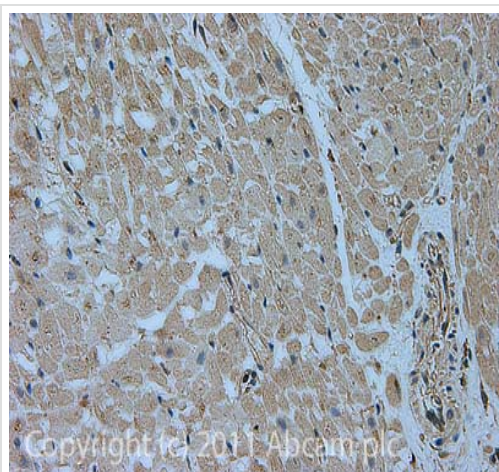
Observed band size: 100 kDa

Additional bands at: 42 kDa, 70 kDa. We are unsure as to the identity of these extra bands.



Immunocytochemistry/ Immunofluorescence - Anti-PDE5A/PDE5 antibody (ab64179)

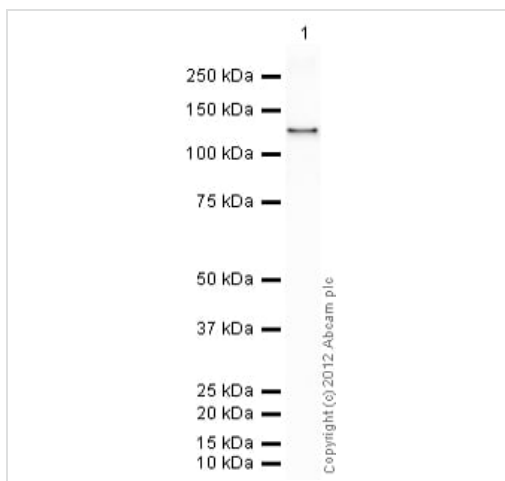
ICC/IF image of ab64179 stained MCF7 cells. The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab64179, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-mouse 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) MCF7 cells at 1µg/ml.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PDE5A/PDE5 antibody (ab64179)

IHC image of ab64179 staining PDE5A/PDE5 in Human heart formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab64179, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Western blot - Anti-PDE5A/PDE5 antibody (ab64179)

Anti-PDE5A/PDE5 antibody (ab64179) at 1 µg/ml + Recombinant mouse PDE5A/PDE5 protein ([ab80330](#)) at 0.001 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) preadsorbed ([ab97080](#)) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 100 kDa

Exposure time: 1 minute

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