




## Product datasheet

# Anti-PLCD4 antibody ab204316

[2 Images](#)

### Overview

<b>Product name</b>	Anti-PLCD4 antibody
<b>Description</b>	Rabbit polyclonal to PLCD4
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, ICC/IF
<b>Species reactivity</b>	<p><b>Reacts with:</b> Human</p> <p><b>Predicted to work with:</b> Cow, Pig, Cynomolgus monkey, Orangutan </p>
<b>Immunogen</b>	<p>Recombinant fragment corresponding to Human PLCD4 aa 90-164. Sequence:</p> <p>GFTVFGRRSNLDMANSVEEAQWMRGLQLLVDLVTSM DHQERLDQWL SDWFQRGDKNQDGKMSFQEVQRLH</p> <p>Database link: <a href="#">Q9BRC7-1</a></p> <p style="text-align: right;">  <a href="#">Run BLAST with</a>                 <a href="#">Run BLAST with</a> </p>
<b>Positive control</b>	Human testis tissue and HeLa cells.
<b>General notes</b>	<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 &amp; 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 &amp; species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications &amp; species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.</p> <p>Applications &amp; 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&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 long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.02% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 59% PBS
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

Our [Abpromise guarantee](#) covers the use of **ab204316** 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
IHC-P		1/1000 - 1/2500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		Use a concentration of 0.25 - 2 µg/ml.

## Target

<b>Function</b>	Hydrolyzes the phosphatidylinositol 4,5-bisphosphate (PIP2) to generate 2 second messenger molecules diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3). DAG mediates the activation of protein kinase C (PKC), while IP3 releases Ca(2+) from intracellular stores. Required for acrosome reaction in sperm during fertilization, probably by acting as an important enzyme for intracellular Ca(2+) mobilization in the zona pellucida-induced acrosome reaction. May play a role in cell growth. Modulates the liver regeneration in cooperation with nuclear PKC. Overexpression up-regulates the Erk signaling pathway and proliferation.
<b>Tissue specificity</b>	Highly expressed in skeletal muscle and kidney tissues, and at moderate level in intestinal tissue. Expressed in corneal epithelial cells.
<b>Sequence similarities</b>	Contains 1 C2 domain. Contains 3 EF-hand domains. Contains 1 PH domain. Contains 1 PI-PLC X-box domain. Contains 1 PI-PLC Y-box domain.
<b>Domain</b>	The PDZ-binding motif mediates the interaction with GRIP1. The C2 domain mediates pre-localization to the membrane prior to Ca(2+) import and non-selective Ca(2+)-mediated targeting to various cellular membranes. The PH domain is not a critical determinant of the membrane localization.

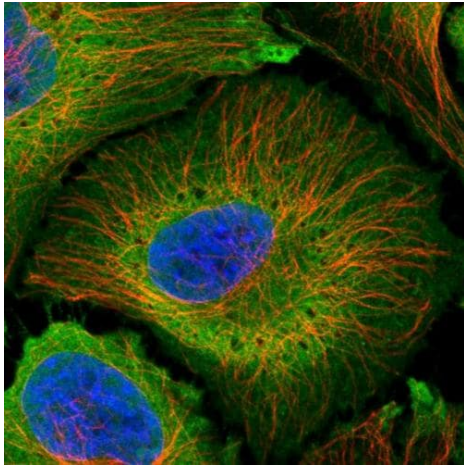
## Cellular localization

Membrane. Nucleus. Cytoplasm. Endoplasmic reticulum. Localizes primarily to intracellular membranes mostly to the endoplasmic reticulum.

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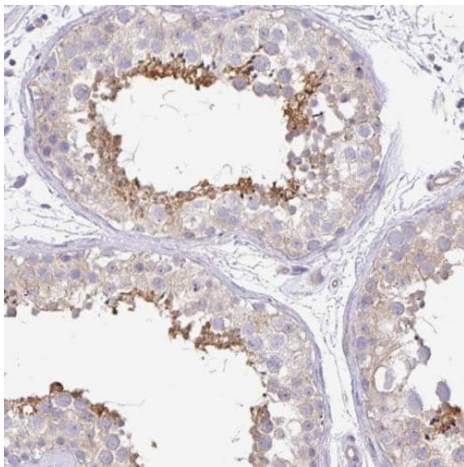
## Images

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Immunofluorescence analysis of paraformaldehyde-fixed HeLa cells labeling PLCD4 using ab204316 at 4 µg/ml.

Immunocytochemistry/ Immunofluorescence - Anti-PLCD4 antibody (ab204316)



Immunohistochemical analysis of paraffin-embedded Human testis tissue, labeling PLCD4 using ab204316 at a 1/1000 dilution.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PLCD4 antibody (ab204316)

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

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- Replacement or refund for products not performing as stated on the datasheet
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- Response to your inquiry within 24 hours

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- Extensive multi-media technical resources to help you
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