

Anti-PLCE1 antibody ab121476

[4 Images](#)

Overview

Product name	Anti-PLCE1 antibody
Description	Rabbit polyclonal to PLCE1
Host species	Rabbit
Tested applications	Suitable for: IHC-P
Species reactivity	Reacts with: Human
Immunogen	Recombinant fragment within Human PLCE1 aa 150-300. The exact immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please contact our Scientific Support team to discuss your requirements.
Positive control	IHC-P: Human lung, small intestine, urinary bladder, and skeletal muscle tissues.
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. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 7.20 Preservative: 0.02% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 59% PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab121476 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		1/50 - 1/200. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Target**Function**

The production of the second messenger molecules diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3) is mediated by activated phosphatidylinositol-specific phospholipase C enzymes. PLCE1 is a bifunctional enzyme which also regulates small GTPases of the Ras superfamily through its Ras guanine-exchange factor (RasGEF) activity. As an effector of heterotrimeric and small G-protein, it may play a role in cell survival, cell growth, actin organization and T-cell activation.

Tissue specificity

Widely expressed. Isoform 1 is broadly expressed and only absent in peripheral blood leukocytes. Isoform 2 is specifically expressed in placenta, lung and spleen.

Involvement in disease

Defects in PLCE1 are the cause of nephrotic syndrome type 3 (NPHS3) [MIM:610725]; also known as early-onset nephrotic syndrome type 3. Nephrotic syndrome, a malfunction of the kidney glomerular filter, leads to proteinuria, hypoalbuminemia, edema. End-stage kidney disease is observed in steroid-resistant nephrotic syndrome.

Sequence similarities

Contains 1 C2 domain.
 Contains 1 PI-PLC X-box domain.
 Contains 1 PI-PLC Y-box domain.
 Contains 2 Ras-associating domains.
 Contains 1 Ras-GEF domain.

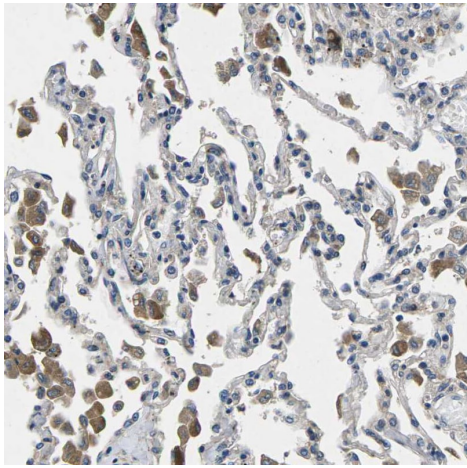
Domain

The Ras-associating domain 1 is degenerated and may not bind HRAS. The Ras-associating domain 2 mediates interaction with GTP-bound HRAS, RAP1A, RAP2A and RAP2B and recruitment of HRAS to the cell membrane.
 The Ras-GEF domain has a GEF activity towards HRAS and RAP1A. Mediates activation of the mitogen-activated protein kinase pathway.

Cellular localization

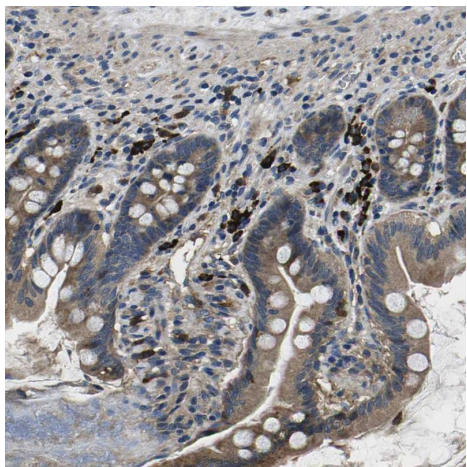
Cytoplasm > cytosol. Cell membrane. Golgi apparatus membrane. Recruited to plasma membrane by activated HRAS and RAP2. Recruited to perinuclear membrane by activated RAP1A. Isoform 1 and isoform 2 associates with Golgi membranes.

Images



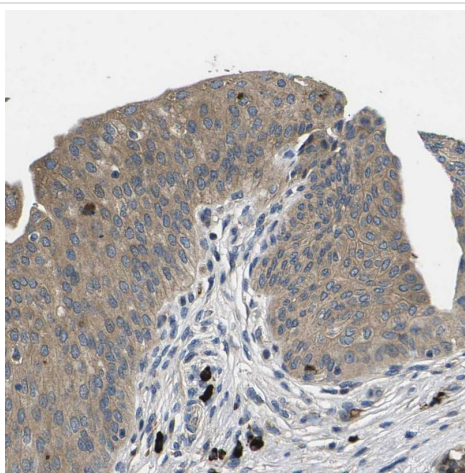
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human lung tissue labeling PLCE1 with ab121476 at 1/50 dilution. Heat mediated antigen retrieval performed with citrate buffer pH 6 before commencing with IHC staining protocol.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PLCE1 antibody (ab121476)



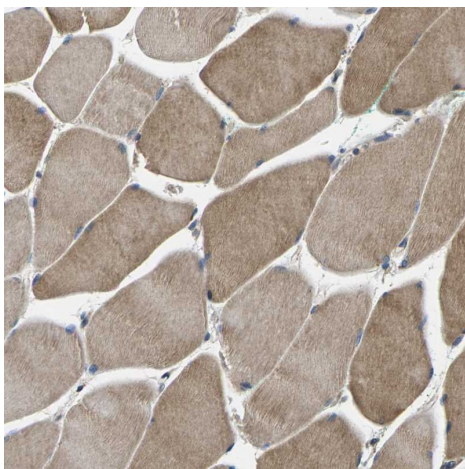
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human small intestine tissue labeling PLCE1 with ab121476 at 1/50 dilution. Heat mediated antigen retrieval performed with citrate buffer pH 6 before commencing with IHC staining protocol.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PLCE1 antibody (ab121476)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PLCE1 antibody (ab121476)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human urinary bladder tissue labeling PLCE1 with ab121476 at 1/50 dilution. Heat mediated antigen retrieval performed with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PLCE1 antibody (ab121476)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human skeletal muscle tissue labeling PLCE1 with ab121476 at 1/50 dilution. Heat mediated antigen retrieval performed with citrate buffer pH 6 before commencing with IHC staining protocol.

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