abcam

ab235997

Anti-Phospholipase D1 antibody [EP1506Y] - BSA and Azide free

RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EP1506Y
Purification technique	Affinity purification Protein A
Concentration	1.029 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.

Notes	-

Not recommended

Species	Human
Dilution info	-
Notes	-

Flow Cyt

Expected

Species	Rat, Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Human
Dilution info	-
Notes	-

WB

Tested

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information PLD1

Function	Function as phospholipase selective for phosphatidylcholine (PubMed:25936805, PubMed:8530346, PubMed:9582313). Implicated as a critical step in numerous cellular pathways, including signal transduction, membrane trafficking, and the regulation of mitosis. May be involved in the regulation of perinuclear intravesicular membrane traffic (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab235997 is the carrier-free version of ab68150.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility

This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Phospholipase D1 (PLD1) is an enzyme belonging to the phospholipase family. It is also known by its gene name PLD1. This enzyme weighs approximately 120 kDa and plays an important mechanical role by hydrolyzing phosphatidylcholine to generate phosphatidic acid and choline. PLD1 is expressed majorly in the brain lungs and pancreas although it can be found in various other tissues as well.
Biological function summary	This enzyme is important in various cellular processes including membrane trafficking cell migration and signal transduction. PLD1 is not an isolated actor and works as part of signaling complexes contributing to cellular dynamics by generating lipid signaling molecules. It's associated with the regulation of mTOR signaling and interacts with other proteins such as protein kinase C (PKC) during various cellular processes.
Pathways	PLD1 plays significant roles in phosphoinositide signaling as well as the mTOR pathway. In the phosphoinositide signaling pathway PLD1 generates phosphatidic acid serving as a lipid signaling molecule which further activates mTOR. Proteins such as mTOR and S6K are related to PLD1's activity and help mediate cellular growth and proliferation activities.
Associated diseases and disorders	Research links PLD1 to cancer and neurodegenerative diseases. Overexpression and hyperactivity of PLD1 are associated with the progression of certain cancers including breast cancer often in association with hyperactive mTOR signaling. Additionally PLD1's involvement in Alzheimer's disease has been studied given its role in signal transduction and membrane dynamics often correlating with the activity of tau proteins.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

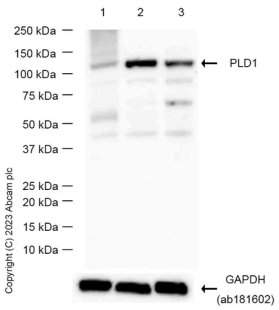
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

2 product images



Western blot - Anti-Phospholipase D1 antibody [EP1506Y] - BSA and Azide free (ab235997)

Phospholipase D1 Western blot staining using rabbit Anti-Phospholipase D1 antibody

Blocking/Diluting buffer and concentration: 5% NFDM/TBS This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab68150).
Lanes 1 - 3:
Western blot - Anti-Phospholipase D1 antibody [EP1506Y] (ab68150) at 1/500 dilution

Lanes 1 - 3:
Western blot - Anti-Phospholipase D1 antibody [EP1506Y] - BSA and Azide free (ab235997) at 1/500 dilution

Lane 1:
HeLa (Human cervix adenocarcinoma epithelial cell) (RIPA) whole cell lysate 20ug

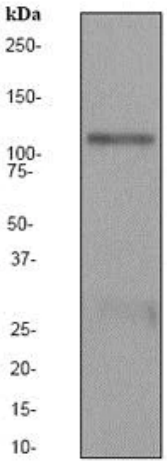
Lane 2:
NIH/3T3 (Mouse embryonic fibroblast) (RIPA) whole cell lysate 20ug

Lane 3:
C6 (Rat glial tumor glial cell) (RIPA) whole cell lysate 20ug

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Exposure time: 60s



Western blot - Anti-Phospholipase D1 antibody [EP1506Y] - BSA and Azide free (ab235997)

Phospholipase D1 Western blot staining of HeLa cell lysate using rabbit Anti-Phospholipase D1 antibody

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab68150).
All lanes:
Western blot - Anti-Phospholipase D1 antibody [EP1506Y] (ab68150) at 1/500 dilution

All lanes:
HeLa cell lysate at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 124 kDa

Observed band size: 120 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.