abcam

ab133522

Anti-PLCG 2 antibody [EPR5914-34]

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR5914-34
Purification technique	Affinity purification Protein A
Dissociation constant	3×10^{-12} M
Concentration	0.676 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/10000
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

ICC/IF

Not recommended

Species	Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/10000 - 1/50000
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/1000
Notes	-

Target data

See full target information PLCG2

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. It is a crucial enzyme in transmembrane signaling.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Storage information	Stable for 12 months at -20°C

Notes

Species reactivity
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

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.

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.

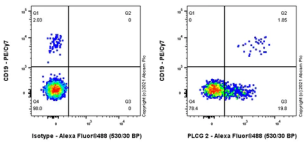
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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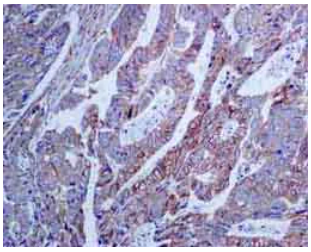
7 product images



Flow Cytometry (Intracellular) - Anti-PLCG 2 antibody [EPR5914-34] (ab133522)

PLCG 2 Flow Cytometry (Intracellular) staining using rabbit Anti-PLCG 2 antibody

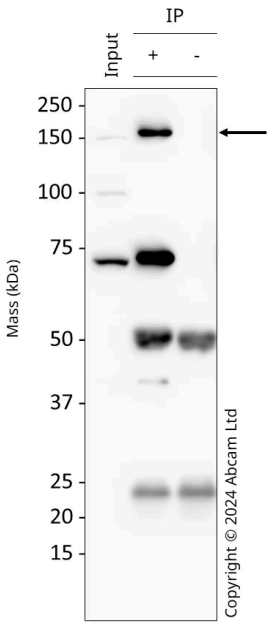
Flow Cytometry analysis of Human Peripheral Blood Mononuclear Cell (PBMC) cells labeling PLCG 2 with purified ab133522 at 1/1000 dilution (1 µg/mL) (Red). Cells were fixed with 2% Paraformaldehyde and permeabilised with 0.1% Tween-20. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150081) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Left).
Cells were surface stained with anti-CD19 conjugated to PE/Cy7, then fixed with 2% PFA followed by intracellularly stained with rabbit IgG or ab133522. Gated on lymphocytes.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PLCG 2 antibody [EPR5914-34] (ab133522)

PLCG 2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-PLCG 2 antibody

Immunohistochemistry analysis of Paraffin Embedded Human gastric adenocarcinoma tissue labelling PLCG2 with ab133522 at 1/100 dilution.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunoprecipitation - Anti-PLCG 2 antibody [EPR5914-34] (ab133522)

This data was developed using ab248535, the same antibody clone in a different buffer formulation. Western blot: antibody description (ab248535) staining at 10,000 dilution, shown in Black. In Western blot, ab248535 was shown to bind specifically to PLCG2. An enriched band was observed at 160 kDa in samples pulled down with ab248535 with no band observed in Isotype control sample. Following IP, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween$^®$ 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times before development with a high-sensitivity ECL substrate kit and imaged. Secondary antibodies used was VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/1000 dilution.
Lanes 1 - 2:
Immunoprecipitation - Anti-PLCG 2 antibody [EPR5914-34] - BSA and Azide free (ab248535) at 1/10000 dilution

Lanes 1 - 2:
Immunoprecipitation - Anti-PLCG 2 antibody [EPR5914-34] (ab133522)

Lane 1:
HAP1 Input cell lysate at 10 µg

Lane 2:
HAP1 pulldown with ab248535 at 10 µg

Lane 3:
HAP1 pulldown with ab172730 Isotype control at 10 µg

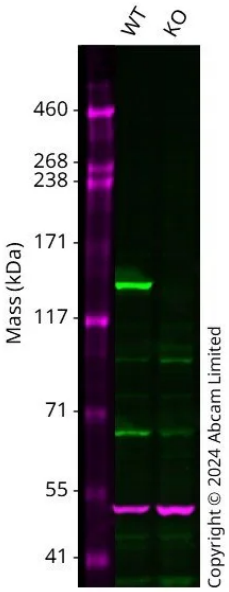
Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/1000 dilution

Developed using the ECL technique.

Observed band size: 160 kDa

Exposure time: 4min



Western blot - Anti-PLCG 2 antibody [EPR5914-34] (ab133522)

PLCG 2 Western blot staining using rabbit Anti-PLCG 2 antibody

Western blot: Anti-PLCG2 antibody [EPR5914-34] (ab133522) staining at 1/10000 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] (ab7291) loading control staining at 1/20000 dilution, shown in magenta. In Western blot, ab133522 was shown to bind specifically to PLCG2. A band was observed at 150 kDa in wild-type HCT 116 cell lysates with no signal observed at this size in PLCG2 knockout cell line. To generate this image, wild-type and PLCG2 knockout HCT 116 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.
All lanes:
Western blot - Anti-PLCG 2 antibody [EPR5914-34] (ab133522) at 1/10000 dilution

Lane 1:

Wild-type HCT 116 cell lysate at 20 µg

Lane 2:
PLCG2 knockout HCT 116 cell lysate at 20 µg

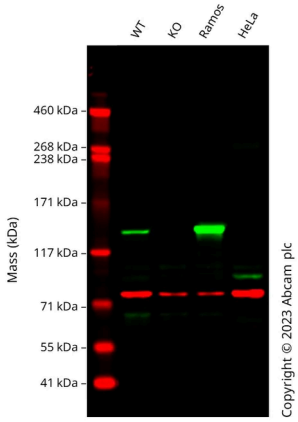
Secondary

Lanes 1 - 2:
Goat anti-Rabbit IgG H&L 800CW at 1/20000 dilution

Lanes 1 - 2:
Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution

Performed under reducing conditions.

Observed band size: 150 kDa



Western blot - Anti-PLCG 2 antibody [EPR5914-34] (ab133522)

Anti-PLCG2 antibody [EPR5914-34] (ab133522) staining at 1/10000 dilution, shown in green; Mouse anti-CANX [CANX/1543] (ab238078) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab133522 was shown to bind specifically to PLCG2. A band was observed at 148 kDa in wild-type HAP1 cell lysates with no signal observed at this size in PLCG2 knockout cell line. To generate this image, wild-type and PLCG2 knockout HAP1 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.
All lanes:
Western blot - Anti-PLCG 2 antibody [EPR5914-34] (ab133522) at 1/10000 dilution

All lanes:
Western blot at 20 µg

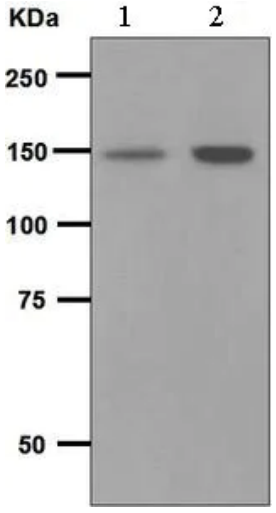
Secondary

All lanes:
Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 148 kDa

Observed band size: 148 kDa



Western blot - Anti-PLCG 2 antibody [EPR5914-34] (ab133522)

All lanes:
Western blot - Anti-PLCG 2 antibody [EPR5914-34] (ab133522) at 1/10000 dilution

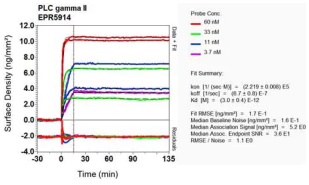
Lane 1:
Raji cell lysates at 10 µg

Lane 2:
Ramos cell lysates at 10 µg

Secondary

All lanes:
HRP-labelled Goat anti-Rabbit at 1/2000 dilution

Predicted band size: 148 kDa



OI-RD Scanning - Anti-PLCG 2 antibody [EPR5914-34] (ab133522)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

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