

Product datasheet

Anti-Phospholipase C beta 1/PLCB1 antibody [EPR19085] α b182359

KO **VALIDATED** **Recombinant** **RabMAb**

[2 References](#) [14 Images](#)

Overview

Product name	Anti-Phospholipase C beta 1/PLCB1 antibody [EPR19085]
Description	Rabbit monoclonal [EPR19085] to Phospholipase C beta 1/PLCB1
Host species	Rabbit
Tested applications	Suitable for: IHC-P, WB, IHC-Fr
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant fragment within Mouse Phospholipase C beta 1/PLCB1 aa 1-300. The exact sequence is proprietary. Database link: Q9Z1B3
Positive control	WB: Human, mouse and rat brain lysates; HeLa, HepG2, NIH/3T3, C6 and PC-12 whole cell lysates. IHC-P: Human cerebrum, mouse hippocampus and rat cerebrum tissues. IHC-Fr: Mouse cerebrum tissue.
General notes	<p>This product was previously labelled as Phospholipase C beta 1.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <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 & 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 & species that this product is</p>

Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & 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.

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&As.

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 long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR19085
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab182359** 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		1/2000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		1/1000. Detects a band of approximately 150, 100 kDa (predicted molecular weight: 138 kDa).
IHC-Fr		1/200. Perform antigen retrieval with heated citric acid solution (10mM citric acid pH 6.0 + 0.05% Tween-20).

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.
Involvement in disease	Epileptic encephalopathy, early infantile, 12

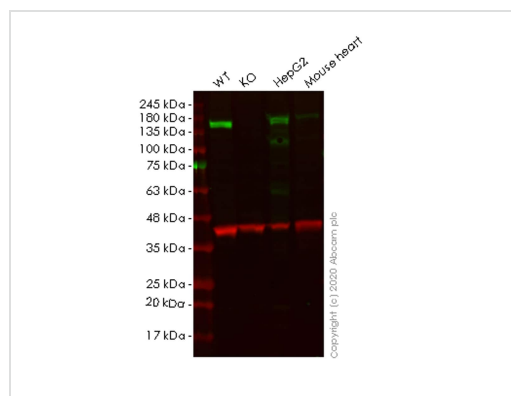
Sequence similarities

Contains 1 C2 domain.
Contains 1 PI-PLC X-box domain.
Contains 1 PI-PLC Y-box domain.

Cellular localization

Nucleus membrane. Cytoplasm. Colocalizes with the adrenergic receptors, ADREN1A and ADREN1B, at the nuclear membrane of cardiac myocytes.

Images



Western blot - Anti-Phospholipase C beta 1/PLCB1 antibody [EPR19085] (ab182359)

All lanes : Anti-Phospholipase C beta 1/PLCB1 antibody [EPR19085] (ab182359) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate

Lane 2 : PLCB1 knockout HeLa cell lysate

Lane 3 : HepG2 cell lysate

Lane 4 : Mouse heart tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) at 1/10000 dilution

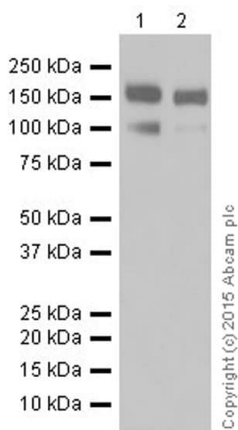
Predicted band size: 138 kDa

Observed band size: 150 kDa

[why is the actual band size different from the predicted?](#)

Lanes 1-4: Merged signal (red and green). Green - ab182359 observed at 150 kDa. Red - loading control [ab8245](#) observed at 36 kDa.

ab182359 Anti-Phospholipase C beta 1/PLCB1 antibody [EPR19085] was shown to specifically react with Phospholipase C beta 1/PLCB1 in wild-type HeLa cells. Loss of signal was observed when knockout cell line [ab266033](#) (knockout cell lysate [ab257589](#)) was used. Wild-type and Phospholipase C beta 1/PLCB1 knockout samples were subjected to SDS-PAGE. ab182359 and Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed ([ab216776](#)) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-Phospholipase C beta 1/PLCB1 antibody [EPR19085] (ab182359)

All lanes : Anti-Phospholipase C beta 1/PLCB1 antibody [EPR19085] (ab182359) at 1/1000 dilution

Lane 1 : Human brain lysate

Lane 2 : HepG2 (Human liver hepatocellular carcinoma cell line) whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG Peroxidase Conjugate, specific to the non-reduced form of IgG at 1/10000 dilution

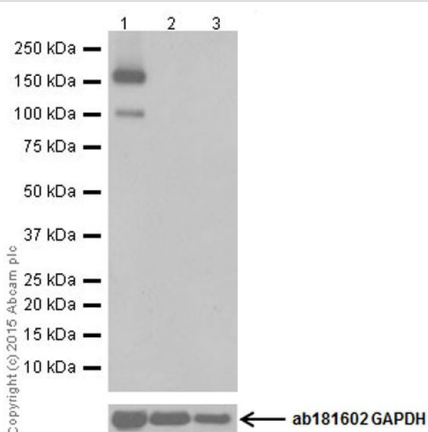
Predicted band size: 138 kDa

Observed band size: 100,150 kDa [why is the actual band size different from the predicted?](#)

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDm/TBST.

The expression profile/molecular weight observed is consistent with what has been described in the literature (PMID: 8429045, 2468162).



Western blot - Anti-Phospholipase C beta 1/PLCB1 antibody [EPR19085] (ab182359)

All lanes : Anti-Phospholipase C beta 1/PLCB1 antibody [EPR19085] (ab182359) at 1/1000 dilution

Lane 1 : Mouse brain lysate

Lane 2 : Mouse heart lysate

Lane 3 : Mouse spleen lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

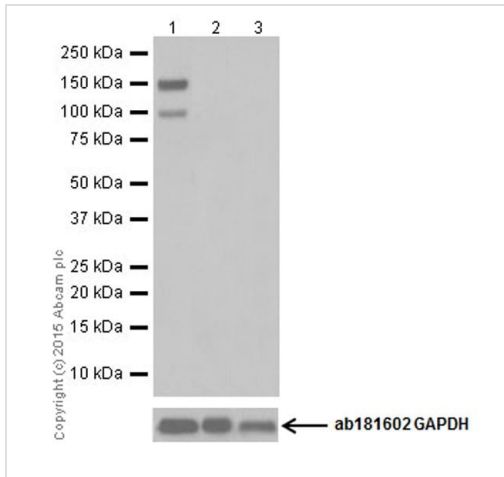
Predicted band size: 138 kDa

Observed band size: 100,150 kDa [why is the actual band size different from the predicted?](#)

Exposure time: 10 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID: 8429045, 2468162).



Western blot - Anti-Phospholipase C beta 1/PLCB1 antibody [EPR19085] (ab182359)

All lanes : Anti-Phospholipase C beta 1/PLCB1 antibody [EPR19085] (ab182359) at 1/1000 dilution

Lane 1 : Rat brain lysate

Lane 2 : Rat heart lysate

Lane 3 : Rat spleen lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

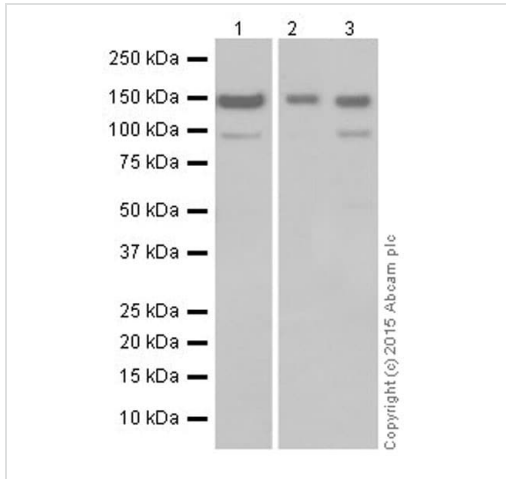
Predicted band size: 138 kDa

Observed band size: 100,150 kDa [why is the actual band size different from the predicted?](#)

Exposure time: 1 second

Blocking/Dilution buffer: 5% NFDM/TBST.

The expression profile and molecular weight observed is consistent with what has been described in the literature (PMID: 8429045, 2468162).



Western blot - Anti-Phospholipase C beta 1/PLCB1 antibody [EPR19085] (ab182359)

All lanes : Anti-Phospholipase C beta 1/PLCB1 antibody [EPR19085] (ab182359) at 1/1000 dilution

Lane 1 : NIH/3T3 (Mouse embryonic fibroblast cell line) whole cell lysate

Lane 2 : C6 (Rat glial tumor cell line) whole cell lysate

Lane 3 : PC-12 (Rat adrenal gland pheochromocytoma cell line) whole cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

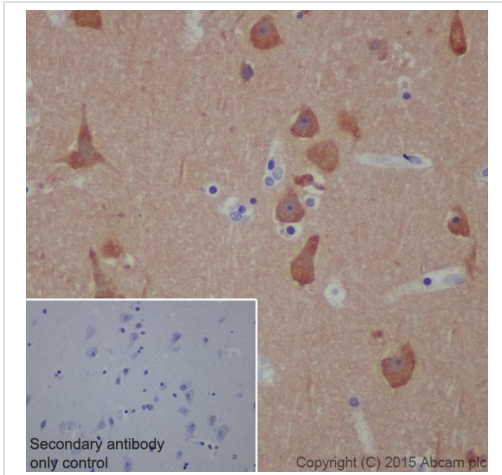
Predicted band size: 138 kDa

Observed band size: 100,150 kDa [why is the actual band size different from the predicted?](#)

Blocking/Dilution buffer: 5% NFDm/TBST.

Exposure time: Lane 1: 3minutes; Lane 2 and 3: 10 seconds.

The expression profile and molecular weight observed is consistent with what has been described in the literature (PMID: 8429045, 2468162).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Phospholipase C beta 1/PLCB1 antibody [EPR19085] (ab182359)

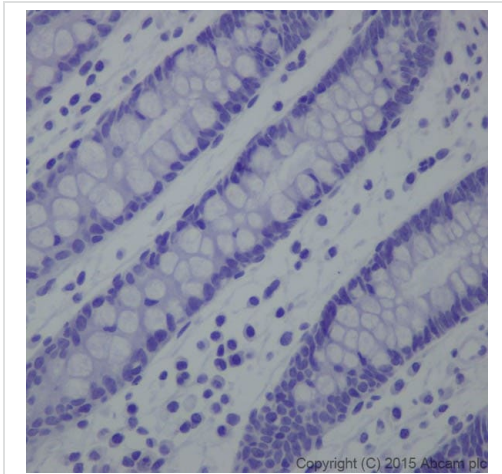
Immunohistochemical analysis of paraffin-embedded Human cerebrum tissue labeling Phospholipase C beta 1/PLCB1 with ab182359 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Cytoplasm staining on normal Human cerebrum is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

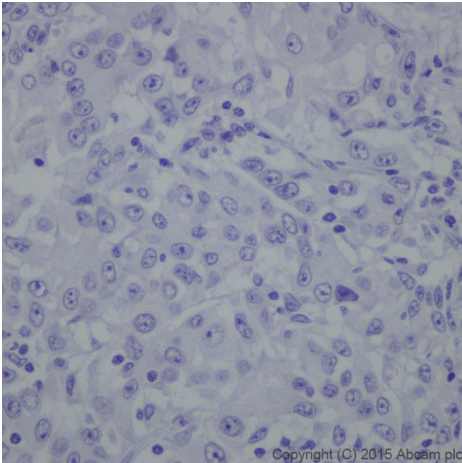


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Phospholipase C beta 1/PLCB1 antibody [EPR19085] (ab182359)

Immunohistochemical analysis of paraffin-embedded Human colon tissue labeling Phospholipase C beta 1/PLCB1 with ab182359 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Negative staining on normal Human colon. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab97051 at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

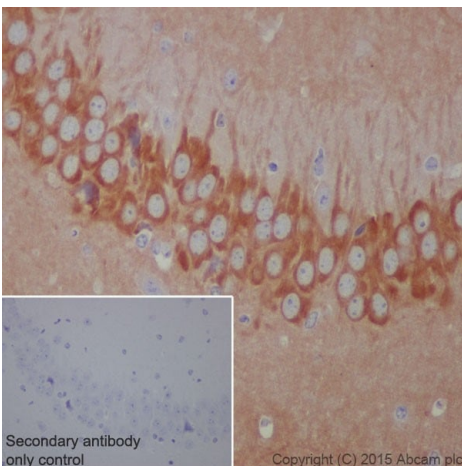


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Phospholipase C beta 1/PLCB1 antibody [EPR19085] (ab182359)

Immunohistochemical analysis of paraffin-embedded Human gastric cancer tissue labeling Phospholipase C beta 1/PLCB1 with ab182359 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Negative staining on Human gastric cancer. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab97051 at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Phospholipase C beta 1/PLCB1 antibody [EPR19085] (ab182359)

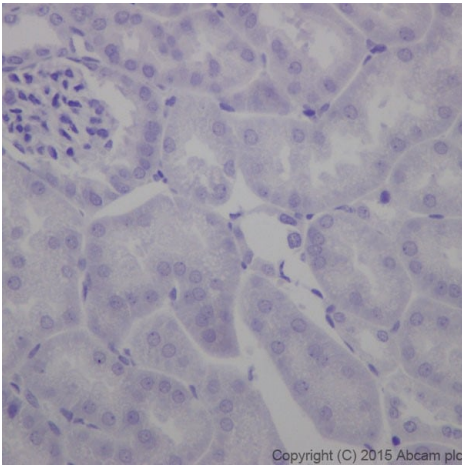
Immunohistochemical analysis of paraffin-embedded Mouse hippocampus tissue labeling Phospholipase C beta 1/PLCB1 with ab182359 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Cytoplasm staining on mouse hippocampus is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

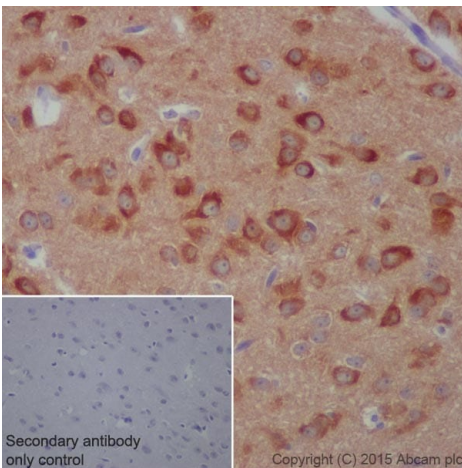


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Phospholipase C beta 1/PLCB1 antibody [EPR19085] (ab182359)

Immunohistochemical analysis of paraffin-embedded Mouse kidney tissue labeling Phospholipase C beta 1/PLCB1 with ab182359 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Negative staining on mouse kidney. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab97051 at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Phospholipase C beta 1/PLCB1 antibody [EPR19085] (ab182359)

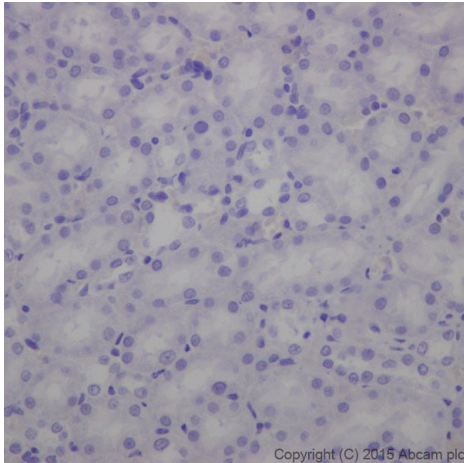
Immunohistochemical analysis of paraffin-embedded Rat cerebrum tissue labeling Phospholipase C beta 1/PLCB1 with ab182359 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Cytoplasm staining on rat cerebrum is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

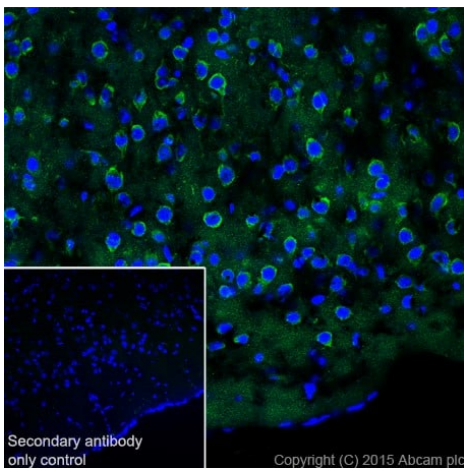


Immunohistochemical analysis of paraffin-embedded Rat kidney tissue labeling Phospholipase C beta 1/PLCB1 with ab182359 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Negative staining on rat kidney. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab97051 at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Phospholipase C beta 1/PLCB1 antibody [EPR19085] (ab182359)



Immunohistochemical analysis of paraffin-embedded frozen, 0.2% Triton X-100 permeabilized Mouse cerebrum tissue labeling Phospholipase C beta 1/PLCB1 with ab182359 at 1/200 dilution, followed by Goat Anti-Rabbit IgG (Alexa Fluor® 488) (ab150077) at 1/1000 dilution (green).





The result showed cytoplasmic staining on mouse cerebrum.

The nuclear counterstain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.

Immunohistochemistry (Frozen sections) - Anti-Phospholipase C beta 1/PLCB1 antibody [EPR19085] (ab182359)

Why choose a recombinant antibody?

 Research with confidence Consistent and reproducible results	 Long-term and scalable supply Recombinant technology
 Success from the first experiment Confirmed specificity	 Ethical standards compliant Animal-free production

Anti-Phospholipase C beta 1/PLCB1 antibody
[EPR19085] (ab182359)

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

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