abcam

## Product datasheet

# Anti-Phospholipase C beta 1/PLCB1 antibody [EPR18895] ab182368

Recombinant RabMAb

1 References 11 Images

### Overview

| | |
|---|---|
| **Product name** | Anti-Phospholipase C beta 1/PLCB1 antibody [EPR18895] |
| **Description** | Rabbit monoclonal [EPR18895] to Phospholipase C beta 1/PLCB1 |
| **Host species** | Rabbit |
| **Tested applications** | **Suitable for:** IHC-P, WB, IP |
| **Species reactivity** | **Reacts with:** Mouse, Rat, Human |
| **Immunogen** | Recombinant fragment within Mouse Phospholipase C beta 1/PLCB1 aa 950 to the C-terminus. The exact sequence is proprietary.<br>Database link: Q9Z1B3 |
| **Positive control** | WB: Mouse brain lysate; Human fetal brain lysate; Rat brain lysate; C6 whole cell lysate. IHC-P: Human, mouse and rat cerebrum tissues. IP: Rat brain whole cell lysate. |
| **General notes** | This product was previously labelled as Phospholipase C beta 1<br><br>This product is a recombinant monoclonal antibody, which offers several advantages including:<br>- High batch-to-batch consistency and reproducibility<br>- Improved sensitivity and specificity<br>- Long-term security of supply<br>- Animal-free production<br>For more information see here.<br><br>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents. |

### Properties

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|---|---|
| **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** | Preservative: 0.01% Sodium azide<br>Constituents: 59% PBS, 0.05% BSA, 40% Glycerol |
| **Purity** | Protein A purified |
| **Clonality** | Monoclonal |
| **Clone number** | EPR18895 |
| **Isotype** | IgG |

## Applications

Our Abpromise guarantee covers the use of **ab182368** 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. 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 kDa (predicted molecular weight: 138 kDa). |
| IP | | 1/20. |

## Target

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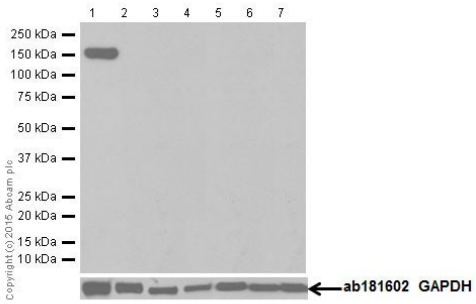
|---|---|
| **Function** | The production of the second messenger molecules diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3) is mediated by activated phosphatidylinositol-specific phospholipase C enzymes. |
| **Involvement in disease** | Epileptic encephalopathy, early infantile, 12 |
| **Sequence similarities** | Contains 1 C2 domain.<br>Contains 1 PI-PLC X-box domain.<br>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 [EPR18895] (ab182368)

**All lanes :** Anti-Phospholipase C beta 1/PLCB1 antibody [EPR18895] (ab182368) at 1/1000 dilution

**Lane 1 :** Mouse brain lysate
**Lane 2 :** Mouse heart lysate
**Lane 3 :** Mouse kidney lysate
**Lane 4 :** Mouse spleen lysate
**Lane 5 :** RAW 264.7 (Mouse macrophage cells transformed with Abelson murine leukemia virus) whole cell lysate
**Lane 6 :** PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysate
**Lane 7 :** NIH/3T3 (Mouse embyro fibroblast cells) whole cell lysate

Lysates/proteins at 10 µg per lane.

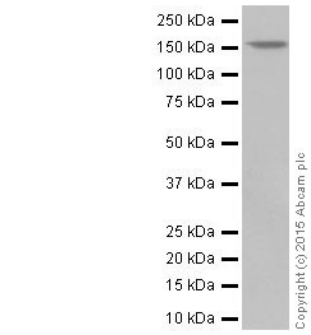
**Secondary**
**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

**Predicted band size:** 138 kDa
**Observed band size:** 150 kDa
why is the actual band size different from the predicted?

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time 3 minutes; GAPDH control lanes: 15 seconds.

The molecular weight observed is consistent with what has been described in the literature (PMID: 8429045)
PLCB1 is selectively expressed in brain which has been described in the literature
(PMID: 2468162)




Western blot - Anti-Phospholipase C beta 1/PLCB1 antibody [EPR18895] (ab182368)

Anti-Phospholipase C beta 1/PLCB1 antibody [EPR18895] (ab182368) at 1/1000 dilution + Human fetal brain lysate at 10 µg

**Secondary**

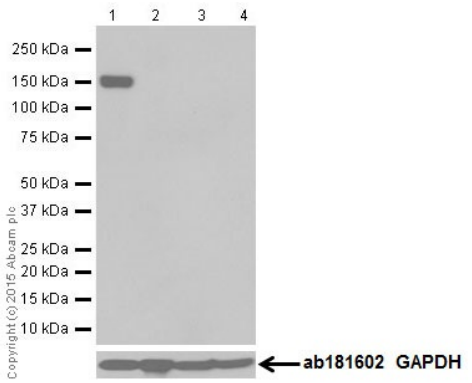
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/10000 dilution

**Predicted band size:** 138 kDa
**Observed band size:** 150 kDa why is the actual band size different from the predicted?

**Exposure time:** 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

The molecular weight observed is consistent with what has been described in the literature (PMID: 8429045)




Western blot - Anti-Phospholipase C beta 1/PLCB1 antibody [EPR18895] (ab182368)

**All lanes :** Anti-Phospholipase C beta 1/PLCB1 antibody [EPR18895] (ab182368) at 1/1000 dilution

**Lane 1 :** Rat brain lysate
**Lane 2 :** Rat heart lysate
**Lane 3 :** Rat kidney lysate
**Lane 4 :** 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

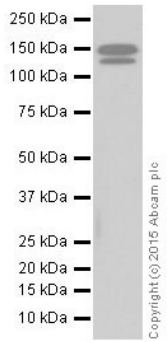
**Predicted band size:** 138 kDa
**Observed band size:** 150 kDa why is the actual band size different from the predicted?

**Exposure time:** 1 minute

Blocking/Dilution buffer: 5% NFDM/TBST.

The molecular weight observed is consistent with what has been described in the literature (PMID:) 8429045

PLCB1 is selectively expressed in brain which has been described in the literature
(PMID: 2468162)




Western blot - Anti-Phospholipase C beta 1/PLCB1 antibody [EPR18895] (ab182368)

Anti-Phospholipase C beta 1/PLCB1 antibody [EPR18895] (ab182368) at 1/1000 dilution + C6 (Rat glial tumor cells) whole cell lysate at 10 µg

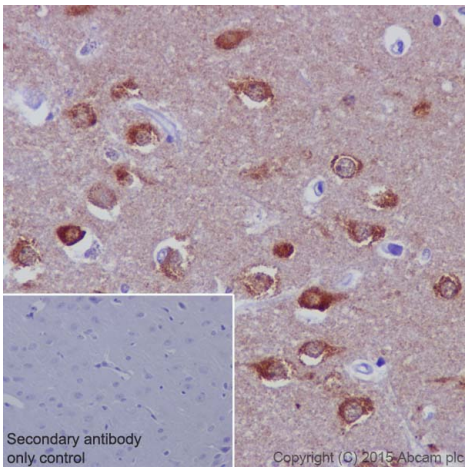
**Secondary**
Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

**Predicted band size:** 138 kDa
**Observed band size:** 150 kDa why is the actual band size different from the predicted?

**Exposure time:** 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

The double bands represent two isoforms of the target which have been described in the literature (PMID: 7510682).

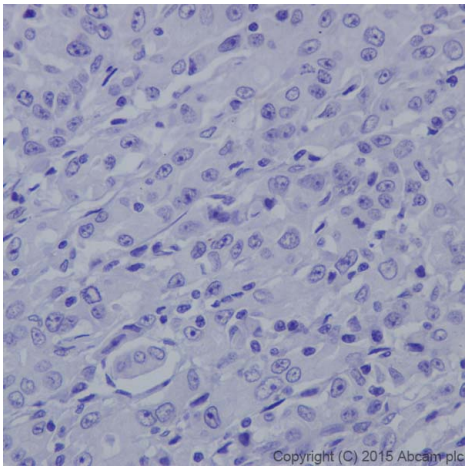



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Phospholipase C beta 1/PLCB1 antibody [EPR18895] (ab182368)

Immunohistochemical analysis of paraffin-embedded Human cerebrum tissue labeling Phospholipase C beta 1/PLCB1 with ab182368 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Mainly 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.

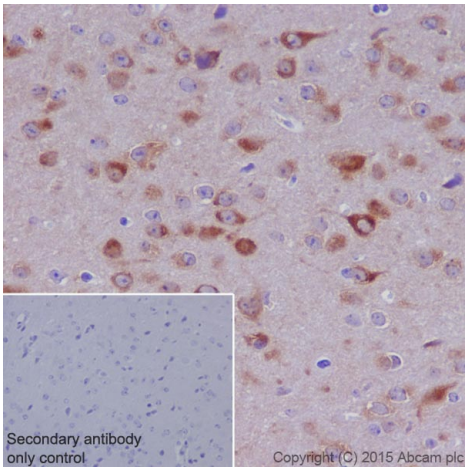
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.




Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Phospholipase C beta 1/PLCB1 antibody [EPR18895] (ab182368)

Immunohistochemical analysis of paraffin-embedded Gastric adenocarcinoma tissue labeling Phospholipase C beta 1/PLCB1 with ab182368 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Negative staining on gastric adenocarcinoma. Counter stained with Hematoxylin.

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

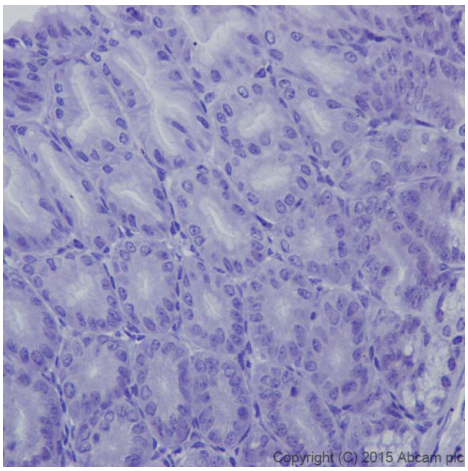



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Phospholipase C beta 1/PLCB1 antibody [EPR18895] (ab182368)

Immunohistochemical analysis of paraffin-embedded Mouse cerebrum tissue labeling Phospholipase C beta 1/PLCB1 with ab182368 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Cytoplasm staining on mouse 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.

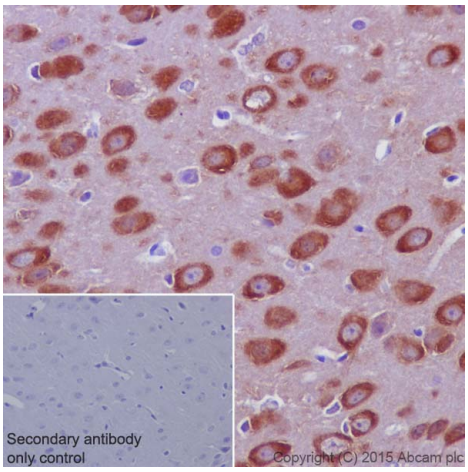
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.




Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Phospholipase C beta 1/PLCB1 antibody [EPR18895] (ab182368)

Immunohistochemical analysis of paraffin-embedded Mouse stomach tissue labeling Phospholipase C beta 1/PLCB1 with ab182368 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Negative staining on mouse stomach. Counter stained with Hematoxylin.

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

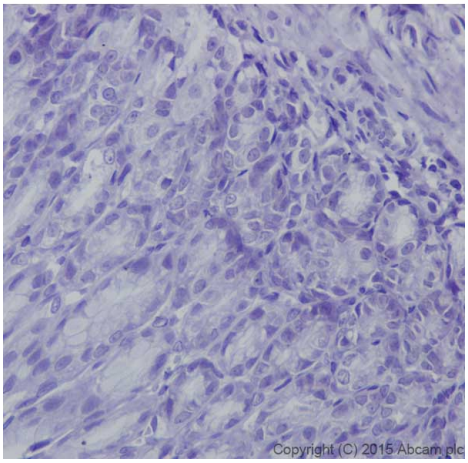



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Phospholipase C beta 1/PLCB1 antibody [EPR18895] (ab182368)

Immunohistochemical analysis of paraffin-embedded Rat cerebrum tissue labeling Phospholipase C beta 1/PLCB1 with ab182368 at 1/1000 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.

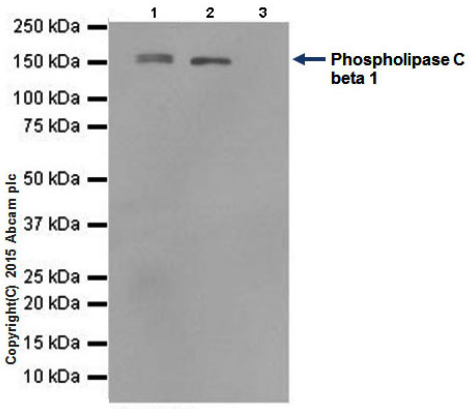
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.




Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Phospholipase C beta 1/PLCB1 antibody [EPR18895] (ab182368)

Immunohistochemical analysis of paraffin-embedded Rat stomach tissue labeling Phospholipase C beta 1/PLCB1 with ab182368 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Negative staining on rat stomach. Counter stained with Hematoxylin.

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




Immunoprecipitation - Anti-Phospholipase C beta 1/PLCB1 antibody [EPR18895] (ab182368)

Phospholipase C beta 1/PLCB1 was immunoprecipitated from 1mg of Rat brain whole cell lysate with ab182368 at 1/20 dilution. Western blot was performed from the immunoprecipitate using ab182368 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/10000 dilution.
Lane 1: Rat brain whole cell lysate 10ug (Input).
Lane 2: ab182368 IP in Rat brain whole cell lysate.
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab182368 in Rat brain whole cell lysate.
Blocking and dilution buffer and concentration: 5% NFDM/TBST.
Exposure time: 3 minutes.



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