

## Product datasheet

# Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866] ab109025

Recombinant RabMAb

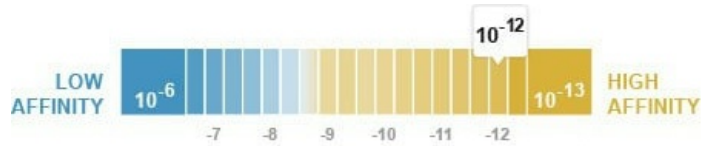
★★★★★ [2 Abreviews](#) [27 References](#) [14 Images](#)

### Overview

|                            |   |
|----------------------------|---|
| <b>Product name</b>        | Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866]   |
| <b>Description</b>         | Rabbit monoclonal [EPR5866] to COX1 / Cyclooxygenase 1  |
| <b>Host species</b>        | Rabbit  |
| <b>Tested applications</b> | <b>Suitable for:</b> Flow Cyt (Intra), WB, IP, IHC-P, ICC/IF  |
| <b>Species reactivity</b>  | <b>Reacts with:</b> Mouse, Rat, Human   |
| <b>Immunogen</b>           | Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.   |
| <b>Positive control</b>    | WB: NIH/3T3, HaCaT, Neuro -2a, C2C12, A431, and L6 cell lysates. IHC-P: Human skin, human cerebrum, mouse kidney, and rat kidney tissues. ICC/IF: HeLa and Neuro-2a cells. Flow Cyt (intra): NIH/3T3 cells. IP: C2C12 cell lysate.  |
| <b>General notes</b>       | <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p> <p><b>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</b></p> |

### Properties

|  |   |
|--|---|
| <b>Form</b>                                  | Liquid  |
| <b>Storage instructions</b>                  | 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. |
| <b>Dissociation constant (K<sub>D</sub>)</b> | K <sub>D</sub> = 5.50 x 10 <sup>-12</sup> M   |



[Learn more about  \$K\_D\$](#)

|                       |  |
|-----------------------|--|
| <b>Storage buffer</b> | pH: 7.20<br>Preservative: 0.01% Sodium azide<br>Constituents: 40% Glycerol, 59% PBS, 0.05% BSA |
| <b>Purity</b>         | Protein A purified   |
| <b>Clonality</b>      | Monoclonal   |
| <b>Clone number</b>   | EPR5866  |
| <b>Isotype</b>        | IgG  |

### Applications

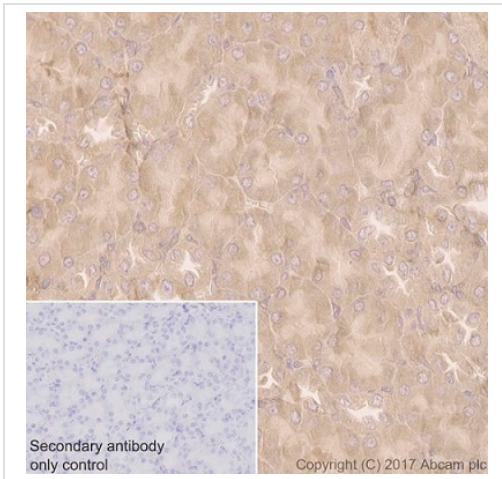
**The Abpromise guarantee** Our [Abpromise guarantee](#) covers the use of ab109025 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application      | Abreviews | Notes  |
|------------------|-----------|--|
| Flow Cyt (Intra) |           | 1/10 - 1/100.<br><b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.  |
| WB               | ★★★★★ (1) | 1/1000 - 1/10000. Predicted molecular weight: 69 kDa.  |
| IP               |           | 1/10 - 1/100.  |
| IHC-P            | ★★★★★ (1) | 1/150. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. Heat up to 98 °C, below boiling, and then let cool for 10-20 min.<br><b>For unpurified use at 1/250 - 1/500.</b> |
| ICC/IF           |           | Use at an assay dependent concentration.   |

### Target

|                              |   |
|------------------------------|---|
| <b>Function</b>              | May play an important role in regulating or promoting cell proliferation in some normal and neoplastically transformed cells. |
| <b>Pathway</b>               | Lipid metabolism; prostaglandin biosynthesis.   |
| <b>Sequence similarities</b> | Belongs to the prostaglandin G/H synthase family.<br>Contains 1 EGF-like domain.  |
| <b>Cellular localization</b> | Microsome membrane. Endoplasmic reticulum membrane.   |

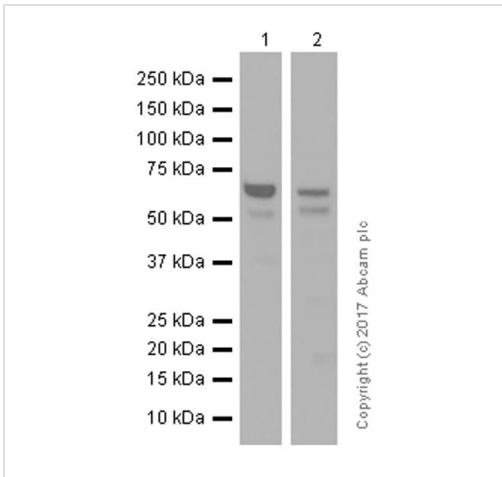
### Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866] (ab109025)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat kidney tissue sections labeling COX1 / Cyclooxygenase 1 with Purified ab109025 at 1:150 dilution. Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution.

PBS instead of the primary antibody was used as the negative control.



Western blot - Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866] (ab109025)

**All lanes :** Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866] (ab109025) at 1/10000 dilution (purified)

**Lane 1 :** A431 (Human epidermoid carcinoma epithelial cell) whole cell lysates

**Lane 2 :** L6 (Rat skeletal muscle myoblast) whole cell lysates

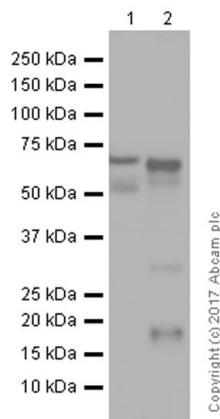
Lysates/proteins at 20 µg per lane.

**Secondary**

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

**Predicted band size:** 69 kDa

**Blocking and diluting buffer:** 5% NFD/MBST.



Western blot - Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866] (ab109025)

**All lanes :** Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866] (ab109025) at 1/2000 dilution (purified)

**Lane 1 :** HaCaT (Human skin keratinocyte) whole cell lysates

**Lane 2 :** NIH/3T3 (Mouse embryonic fibroblast) whole cell lysates

Lysates/proteins at 20 µg per lane.

#### Secondary

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

**Predicted band size:** 69 kDa

**Blocking and diluting buffer:** 5% NFD/MTBST.

ab109025 (purified) at 1:20 dilution (0.8µg) immunoprecipitating COX1 / Cyclooxygenase 1 in C2C12 whole cell lysate.

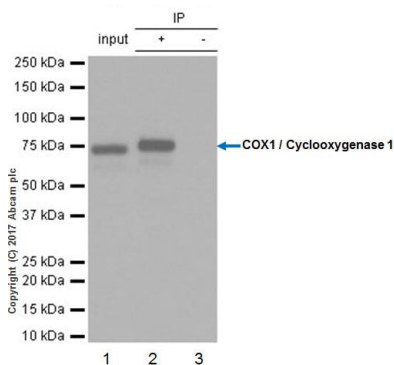
**Lane 1 (input):** C2C12 (Mouse myoblasts myoblast) whole cell lysate, 10µg

**Lane 2 (+):** ab109025 & C2C12 whole cell lysate

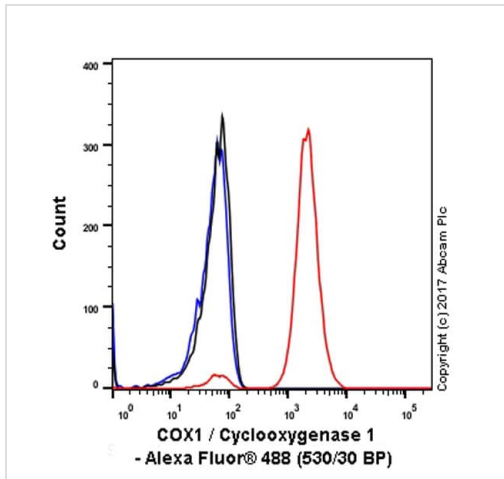
**Lane 3 (-):** Rabbit monoclonal IgG (**ab172730**) instead of ab109025 in C2C12 whole cell lysate

For western blotting, VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used for detection at 1:1000 dilution.

**Blocking and diluting buffer:** 5% NFD/MTBST.

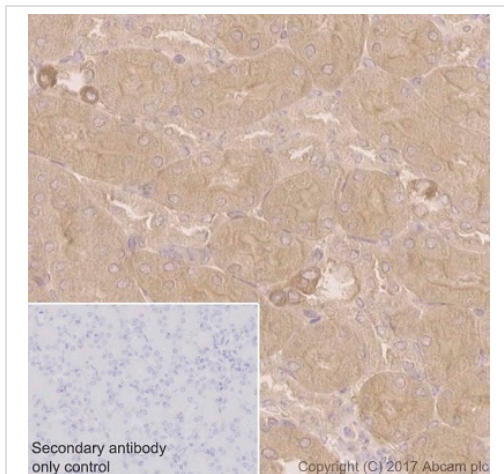


Immunoprecipitation - Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866] (ab109025)



Flow Cytometry (Intracellular) - Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866] (ab109025)

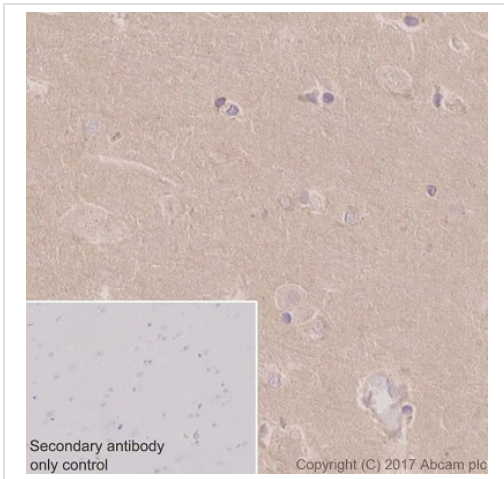
Intracellular Flow Cytometry analysis of NIH/3T3 (Mouse embryonic fibroblast) cells labeling COX1 / Cyclooxygenase 1 with purified ab109025 at 1/100 dilution (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866] (ab109025)

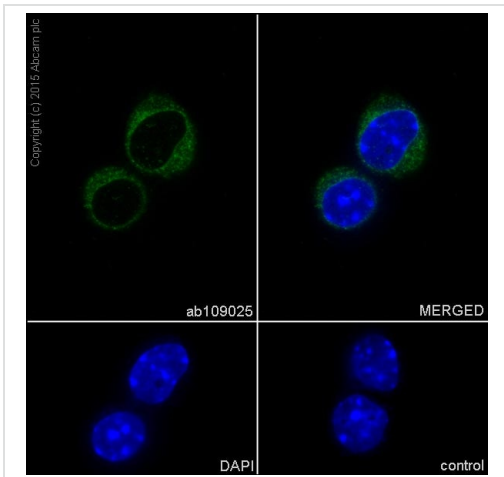
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse kidney tissue sections labeling COX1 / Cyclooxygenase 1 with Purified ab109025 at 1:150 dilution. Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution.

PBS instead of the primary antibody was used as the negative control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866] (ab109025)

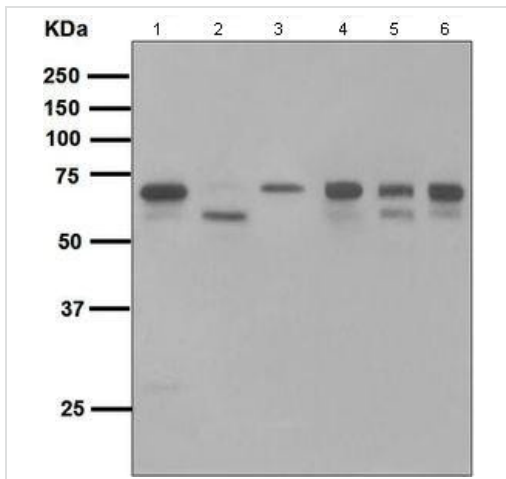
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human cerebrum tissue sections labeling COX1 / Cyclooxygenase 1 with Purified ab109025 at 1:150 dilution. Heat mediated antigen retrieval was performed using [ab93684](#) (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.



Immunocytochemistry/ Immunofluorescence - Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866] (ab109025)

Immunocytochemistry/Immunofluorescence analysis of Neuro-2a (mouse neuroblastoma) labelling COX1 with purified ab109025 at 1/50. Cells were fixed with 100% methanol. An Alexa Fluor<sup>®</sup> 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody ([ab150077](#)). Nuclei counterstained with DAPI (blue).

Control: PBS only.



Western blot - Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866] (ab109025)

**All lanes :** Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866] (ab109025) at 1/1000 dilution (unpurified)

**Lane 1 :** NIH/3T3 cell lysate

**Lane 2 :** HaCaT cell lysate

**Lane 3 :** Neuro 2a cell lysate

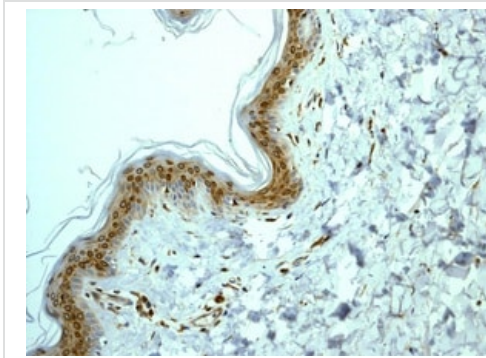
**Lane 4 :** C2C12 cell lysate

**Lane 5 :** A431 cell lysate

**Lane 6 :** L6 cell lysate

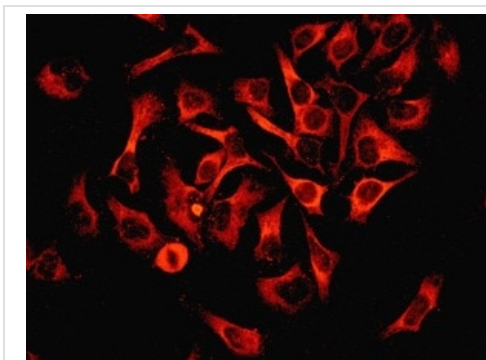
Lysates/proteins at 10 µg per lane.

**Predicted band size:** 69 kDa



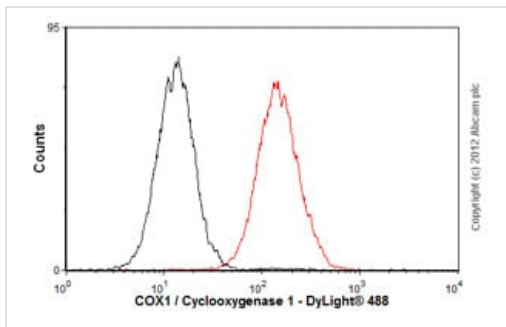
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866] (ab109025)

Unpurified ab109025 at 1/250 dilution staining COX1 / Cyclooxygenase 1 in human skin by immunohistochemistry, paraffin-embedded tissue.



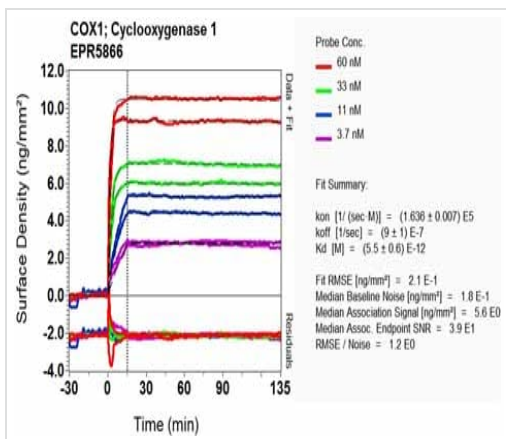
Immunocytochemistry/ Immunofluorescence - Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866] (ab109025)

Unpurified ab109025 at 1/100 dilution staining COX1 / Cyclooxygenase 1 in HeLa cells by Immunofluorescence.



Flow Cytometry (Intracellular) - Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866] (ab109025)

Overlay histogram showing NIH/3T3 cells stained with unpurified ab109025 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab109025, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) ([ab96899](#)) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >5,000 events was performed.



OIR-D Scanning - Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866] (ab109025)

Equilibrium dissociation constant ( $K_D$ )

Learn more about  $K_D$

[Click here to learn more about  \$K\_D\$](#)



### 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-COX1 / Cyclooxygenase 1 antibody [EPR5866]  
(ab109025)

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