# abcam

## Product datasheet

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



יעלטעבע RabMAb

★★★★ <u>2 Abreviews</u> <u>36 References</u> 画像数 15

#### 製品の概要

製品名 Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866]

製品の詳細 Rabbit monoclonal [EPR5866] to COX1 / Cyclooxygenase 1

由来種 Rabbit

アプリケーション 適用あり: Flow Cyt (Intra), WB, IP, IHC-P, ICC/IF

種交差性 交差種: Mouse, Rat, Human

免疫原 Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

ポジティブ・コントロール 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.

特記事項 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 production

For more information see here.

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

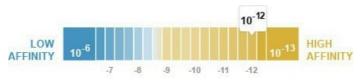
#### 製品の特性

製品の状態 Liquid

保存方法 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.

 $K_D = 5.50 \times 10^{-12} M$ 解離定数(K<sub>D</sub>値)



Learn more about K<sub>D</sub>

Preservative: 0.01% Sodium azide

Constituents: 40% Glycerol, 59% PBS, 0.05% BSA

精製度 Protein A purified

**ポリモノ** モノクローナル **クローン名** EPR5866

アイソタイプ lgG

### アプリケーション

**The Abpromise guarantee Abpromise保証は、**次のテスト済みアプリケーションにおけるab109025の使用に適用されます アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
Flow Cyt (Intra)		1/10 - 1/100. <b>ab172730</b> - Rabbit monoclonal lgG, is suitable for use as an isotype control with this antibody.
WB	<b>★★★</b> ☆☆ <u>(1)</u>	1/1000 - 1/10000. Predicted molecular weight: 69 kDa.
IP		1/10 - 1/100.
IHC-P	<b>★★★★</b> (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. For unpurified use at 1/250 - 1/500.
ICC/IF		Use at an assay dependent concentration.

## ターゲット情報

機能 May play an important role in regulating or promoting cell proliferation in some normal and

neoplastically transformed cells.

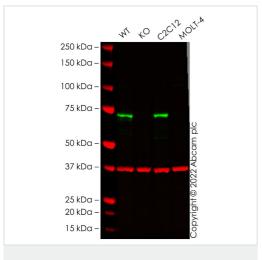
パスウェイ Lipid metabolism; prostaglandin biosynthesis.

**配列類似性** Belongs to the prostaglandin G/H synthase family.

Contains 1 EGF-like domain.

**細胞内局在** Microsome membrane. Endoplasmic reticulum membrane.

## 画像



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

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

Lane 1: Wild-type A431 cell lysate

Lane 2: PTGS1 knockout A431 cell lysate

Lane 3 : C2C12 cell lysate
Lane 4 : MOLT-4 cell lysate

Lysates/proteins at 20 µg per lane.

## **Secondary**

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

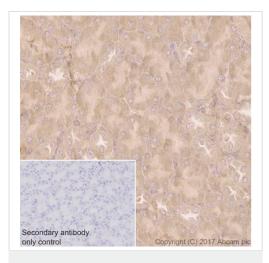
Performed under reducing conditions.

**Predicted band size:** 69 kDa **Observed band size:** 70 kDa

False colour image of Western blot: Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866] staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] (ab8245) loading control staining at 1/20000 dilution, shown in red.

In Western blot, ab109025 was shown to bind specifically to COX1 / Cyclooxygenase 1. A band was observed at 70 kDa in wild-type A431 cell lysates with no signal observed at this size in PTGS1 knockout cell line <a href="mailto:ab270477">ab270477</a> (knockout cell lysate <a href="mailto:ab270500">ab270500</a>).

To generate this image, wild-type and PTGS1 knockout A431 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 lgG H&L 800CW and Goat anti-Mouse lgG H&L 680RD at 1/20000 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded 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 <a href="mailto:ab93684">ab93684</a> (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**

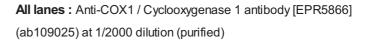
**All lanes :** Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 69 kDa

Blocking and diluting buffer: 5% NFDM/TBST.



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



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

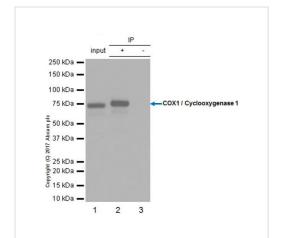
Lane 2 : NIH/3T3 (Mouse embryonic fibroblast) whole cell lysates

Lysates/proteins at 20 µg per lane.

## **Secondary**

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

Predicted band size: 69 kDa



Immunoprecipitation - Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866] (ab109025) **Blocking and diluting buffer:** 5% NFDM/TBST.

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

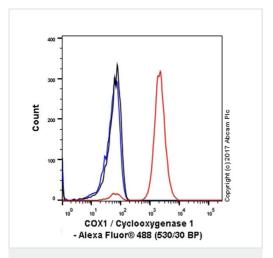
**Lane 1 (input):** C2C12 (Mouse myoblasts myoblast) whole cell lysate,10µg

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

Lane 3 (-): Rabbit monoclonal IgG (<u>ab172730</u>) instead of ab109025 in C2C12 whole cell lysate

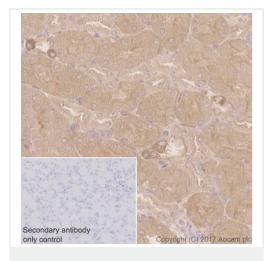
For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1:1000 dilution.

Blocking and diluting buffer: 5% NFDM/TBST.



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

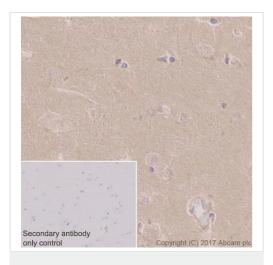
Intracellular Flow Cytometry analysis of NIH/3T3 (Mouse embryonic fibroblast) cells labeling COX1 / Cyclooxygenase 1 with purified ab109025 at 1/100 dilution (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit lgG (Alexa Fluorr® 488) secondary antibody was used at 1/2000 dilution. Isotype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



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded 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 <a href="mailto:ab93684">ab93684</a> (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.

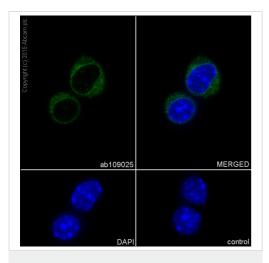
PBS instead of the primary antibody was used as the negative control.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded 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 <a href="mailto:ab93684">ab93684</a> (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.

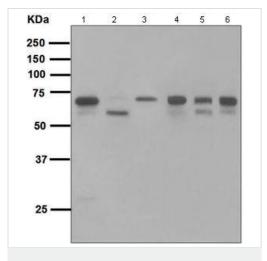
PBS instead of the primary antibody was used as the negative control.



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® 488-conjugated goat anti-rabbit lgG (1/1000) was used as the secondary antibody (ab150077). Nuclei counterstained with DAPI (blue).

Control: PBS only.



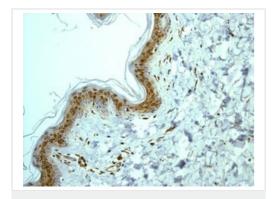
Western blot - Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866] (ab109025)

**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

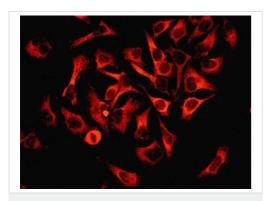
Lysates/proteins at 10 µg per lane.

Predicted band size: 69 kDa



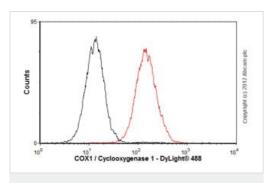
Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866] (ab109025)

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



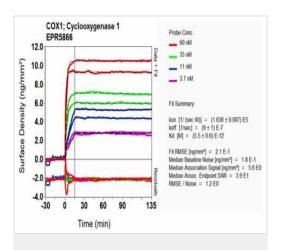
Immunocytochemistry/ Immunofluorescence - Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866] (ab109025)

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)

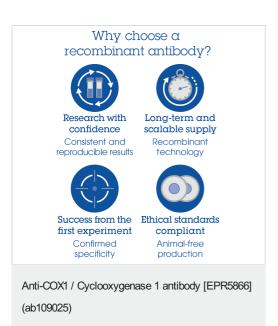
Overlay histogram showing NIH/3T3 cells stained with unpurified ab109025 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein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



OI-RD Scanning - Anti-COX1 / Cyclooxygenase 1 antibody [EPR5866] (ab109025)

Equilibrium disassociation constant ( $K_D$ ) Learn more about  $K_D$ 

## Click here to learn more about K<sub>D</sub>



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