Product Datasheet

Anti-COX2 / Cyclooxygenase 2 antibody ab15191

Rating: ★★★☆☆ 35 Abreviews  179 References  9 Images

Overview

Product name: Anti-COX2 / Cyclooxygenase 2 antibody

Description: Rabbit polyclonal to COX2 / Cyclooxygenase 2

Host species: Rabbit

Tested applications: Suitable for: IHC-Fr, ICC/IF, Sandwich ELISA, IP, IHC-P, WB

Species reactivity: Reacts with: Mouse, Rat, Human, Syrian hamster

Immunogen: Synthetic peptide within Rat COX2/ Cyclooxygenase 2 aa 550 to the C-terminus (C terminal). The exact sequence is proprietary.

Database link: P35355

Positive control: IHC-P: Mouse brain, Rat hippocampus, and Human breast carcinoma tissues; IHC-Fr: Mouse aorta atherosclerotic plaque, Mouse liver, and Human colorectal tumor tissues; ICC/IF: HepG2 cells;

General notes: This product is FOR RESEARCH USE ONLY. For commercial use, please contact partnerships@abcam.com.

Properties

Form: Liquid

Storage instructions: Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

Storage buffer: pH: 7.6
Preservative: 0.1% Sodium azide
Constituents: PBS, 1% BSA

Purity: Immunogen affinity purified

Clonality: Polyclonal

Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab15191 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
**Function**
Mediates the formation of prostaglandins from arachidonate. May have a role as a major mediator of inflammation and/or a role for prostanoid signaling in activity-dependent plasticity.

**Pathway**
Lipid metabolism; prostaglandin biosynthesis.

**Sequence similarities**
Belongs to the prostaglandin G/H synthase family.
Contains 1 EGF-like domain.

**Post-translational modifications**
S-nitrosylation by NOS2 (iNOS) activates enzyme activity. S-nitrosylation may take place on different Cys residues in addition to Cys-561.

**Cellular localization**
Microsome membrane. Endoplasmic reticulum membrane.

### Application

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHC-Fr</td>
<td></td>
<td>1/100.</td>
</tr>
<tr>
<td>ICC/IF</td>
<td></td>
<td>Use at an assay dependent concentration. PubMed: 20660112</td>
</tr>
<tr>
<td>Sandwich ELISA</td>
<td></td>
<td>Use a concentration of 0.5 µg/ml. For sandwich ELISA, use this antibody as Detection at 0.5µg/ml with ab90345 as Capture.</td>
</tr>
<tr>
<td>IP</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>IHC-P</td>
<td>⭐⭐⭐⭐⭐</td>
<td>1/100.</td>
</tr>
<tr>
<td>WB</td>
<td></td>
<td>Use at an assay dependent concentration. Detects a band of approximately 69 kDa.</td>
</tr>
</tbody>
</table>

### Target

**Function**
Mediates the formation of prostaglandins from arachidonate. May have a role as a major mediator of inflammation and/or a role for prostanoid signaling in activity-dependent plasticity.

**Pathway**
Lipid metabolism; prostaglandin biosynthesis.

**Sequence similarities**
Belongs to the prostaglandin G/H synthase family.
Contains 1 EGF-like domain.

**Post-translational modifications**
S-nitrosylation by NOS2 (iNOS) activates enzyme activity. S-nitrosylation may take place on different Cys residues in addition to Cys-561.

**Cellular localization**
Microsome membrane. Endoplasmic reticulum membrane.

### Images

**Western blot - Anti-COX2 / Cyclooxygenase 2 antibody (ab15191)**

**All lanes**: Anti-COX2 / Cyclooxygenase 2 antibody (ab15191) at 1 µg/ml

**Lane 1**: Recombinant human COX2 / Cyclooxygenase 2 protein (Active) (ab58868) at 0.1 µg

**Lane 2**: Recombinant human COX2 / Cyclooxygenase 2 protein (Active) (ab58868) at 0.01 µg

**Secondary**

**All lanes**: Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.
**Exposure time:** 10 seconds

ab15191 staining COX2 in HepG2 cells treated with sinomenine hydrochloride (ab141190), by ICC/IF. Decrease of COX2 expression correlates with increased concentration of sinomenine hydrochloride, as described in literature.

The cells were incubated at 37°C for 48 hours in media containing different concentrations of ab141190 (sinomenine hydrochloride) in DMSO, fixed with 4% formaldehyde for 10 minutes at room temperature and blocked with PBS containing 10% goat serum, 0.3 M glycine, 1% BSA and 0.1% tween for 2h at room temperature. Staining of the treated cells with ab15191 (5 μg/ml) was performed overnight at 4°C in PBS containing 1% BSA and 0.1% tween. A DyLight 488 anti-rabbit polyclonal antibody (ab96899) at 1/250 dilution was used as the secondary antibody. Nuclei were counterstained with DAPI and are shown in blue.

ab15191 staining mouse brain sections by IHC-P. Sections were formaldehyde fixed and subjected to heat mediated antigen retrieval in citrate buffer prior to blocking with 1% BSA for 10 minutes at RT. The primary antibody was diluted 1/2000 and incubated with the sample for 2 hours. A biotinylated goat anti-rabbit IgG antibody, diluted 1/300, was used as the secondary. Sections were preblocked in an Avidin-Biotin kit to mask endogenous biotin

Standard Curve for COX2 / Cyclooxygenase 2 (Analyte: ab58868) dilution range 1pg/ml to 1ug/ml using Capture Antibody Mouse monoclonal [AS66] to COX2 / Cyclooxygenase 2 (ab90345) at 1ug/ml and Detector Antibody Rabbit polyclonal to COX2 / Cyclooxygenase 2 (ab15191) at 0.5ug/ml
**Immunohistochemistry (Frozen sections) - Anti- \( \text{COX2} / \text{Cyclooxygenase 2} \) antibody (ab15191)**

Image is courtesy of an anonymous Abreview

ab15191 staining COX2 in Human Colorectal Tumor tissue sections by Immunohistochemistry (IHC-Fr - frozen sections). Tissue was fixed with paraformaldehyde, permeabilized with 0.3% Triton and blocked with 5% serum for 1 hour at 24°C. Samples were incubated with primary antibody (1/500 in PBS + 0.3% Triton + 0.1% BSA) for 2 hours at 24°C. An Alexa Fluor® 488-conjugated Goat anti-rabbit polyclonal (1/1000) was used as the secondary antibody.

**Immunohistochemistry (Frozen sections) - Anti- \( \text{COX2} / \text{Cyclooxygenase 2} \) antibody (ab15191)**

This image is courtesy of an Abreview submitted by Miss Silke Vorwald

ab15191 staining tissue sections of arteriosclerotic plaque in mouse aorta by IHC-Fr. Sections were acetone fixed and blocked in 1% serum for 10 minutes at 20°C prior to incubation with the primary antibody (diluted 1/500) for 1 hour at 20°C. A biotinylated donkey anti-rabbit antibody (diluted 1/500) was used as the secondary.

**Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti- \( \text{COX2} / \text{Cyclooxygenase 2} \) antibody (ab15191)**

This image is courtesy of an Abreview submitted by Mr Carl Hobbs

ab15191 staining adult rat hippocampus tissue sections by IHC-P. Sections were formaldehyde fixed and subjected to heat mediated antigen retrieval (in citric acid, pH6, 10mM) prior to blocking in 1% BSA for 10 minutes at RT. The primary antibody was diluted 1/400 and incubated with the sample for 2 hours. A biotinylated goat anti-rabbit antibody, diluted 1/300 was used as the secondary.

Clear cytoplasmic staining in a subset of neurones in the dentate gyrus of a sagittal section of whole rat brain can be seen. In other areas of this section, there are, additionally, small cells and their processes that are positive: they may be inter-neurones or microglia: it would be necessary to carry out double-immunostaining to confirm this.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-COX2 / Cyclooxygenase 2 antibody (ab15191)

ab15191 staining COX2 / Cyclooxygenase in human breast carcinoma by Immunohistochemistry (FFPE-sections).

Immunohistochemistry (Frozen sections) - Anti-COX2 / Cyclooxygenase 2 antibody (ab15191)

ab15191 staining COX2 / Cyclooxygenase 2 in Mouse liver tissue sections by IHC-Fr.

Cells were fixed with acetone and blocked with 10% Serum for 60 minutes at 22°C. Samples were incubated with primary antibody (1/200 in PBS + 0.1% Triton x-100) for 13 hour at 4°C. An Alexa Fluor®488-conjugated Goat anti-rabbit IgG polyclonal(1/1000) was used as the secondary antibody.

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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors