Product name: Anti-COX1 / Cyclooxygenase 1 antibody [5F6/F4] ab695

Description: Mouse monoclonal [5F6/F4] to COX1 / Cyclooxygenase 1

Host species: Mouse

Specificity: This antibody recognizes COX1. No cross-reactivity with COX2.

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

Species reactivity: Reacts with: Mouse, Rat, Human

Immunogen: Other Immunogen Type corresponding to COX1/ Cyclooxygenase 1. A preparation of intracellular proteins of the human cell line HL60.


General notes: Please note that we have received reports from customers working with this antibody that they obtain two strong bands in Western blot. A single band at around 72kDa is expected. One customer reported that when tested with three different human cell lines two strong bands are obtained, one between 40 - 50kDa and other other between 62 - 83kDa. It is possible that a degraded form of the enzyme is detected or the bands may correspond to different glycosylation states.

Properties:

Form: Liquid

Storage instructions: Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

Storage buffer: Preservative: 0.02% Sodium azide

Purity: Immunogen affinity purified

Clonality: Monoclonal

Clone number: 5F6/F4

Isotype: IgG1

Light chain type: kappa
### Function
May play an important role in regulating or promoting cell proliferation in some normal and neoplastically transformed cells.

### Pathway
Lipid metabolism; prostaglandin biosynthesis.

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

### Cellular localization
Microsome membrane. Endoplasmic reticulum membrane.

## Applications

Our Abpromise guarantee covers the use of ab695 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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<tr>
<td>ELISA</td>
<td></td>
<td>Use a concentration of 0.001 - 0.01 µg/ml.</td>
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<tr>
<td>WB</td>
<td>★★★★★</td>
<td>Use a concentration of 1 - 2 µg/ml.</td>
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<tr>
<td>IHC-Fr</td>
<td></td>
<td>Use a concentration of 10 µg/ml.</td>
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<tr>
<td>IHC-P</td>
<td>★★★★</td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>Flow Cyt</td>
<td></td>
<td>Use 1-2µg for $10^6$ cells. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.</td>
</tr>
<tr>
<td>IP</td>
<td>★★★★★</td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>ICC/IF</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
</tbody>
</table>

## Target

### Function
May play an important role in regulating or promoting cell proliferation in some normal and neoplastically transformed cells.

### Pathway
Lipid metabolism; prostaglandin biosynthesis.

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

### Cellular localization
Microsome membrane. Endoplasmic reticulum membrane.
Anti-COX1 / Cyclooxygenase 1 antibody [5F6/F4] (ab695) at 1 µg/ml + Huh-7 whole cell lysate at 15 µg

**Secondary**
Sheep anti-mouse IgG conjugated to HRP at 1/1000 dilution

Performed under reducing conditions.

**Observed band size:** 68 kDa

**Additional bands at:** 38 kDa. We are unsure as to the identity of these extra bands.

**Exposure time:** 4 minutes

Primary antibody incubated for 1 hour at 20°C in 5% milk in TBST. Gel running conditions: Denaturing. Blocked using 5% milk for 16 hours at 4°C. Detection method: Western lightning chemiluminescent reagent.

Human adjacent breast tissue to tumor or breast tumor tissue labeled by indirect immunofluorescence for COX-1 (red) using ab695, with DAPI as nuclear counterstain (blue).
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-COX1 / Cyclooxygenase 1 antibody [5F6/F4] (ab695)  
This image is courtesy of an anonymous Abreview

ab695 at 1/400 staining human anal cancer tissue (Left panel) and mouse kidney tissue (Right panel) sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed before the tissue was incubated with the antibody for 45 minutes. An HRP conjugated goat anti-mouse antibody was used as the secondary.

Immunoprecipitation - Anti-COX1 / Cyclooxygenase 1 antibody [5F6/F4] (ab695)  
Verified customer

Sample: Huh-7 whole cell lysate  
Total protein in input: 1x10^6 cells  
Treatment: Cells expressing recombitnent myc-tagged COX1  
Immunoprecipitation step: Protein A

ab695 used at 4 µg/mg lysate, incubated for 4 hours at 4°C.  

WB antibody was ab9106 used at a 1/5000 dilution.
Overlay histogram showing NIH/3T3 (Mouse embryo fibroblast cell line) cells stained with ab695 (red line). The cells were fixed with 80% methanol (5 minutes) and then permeabilized with 0.1% PBS-Tween for 20 minutes. 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 (ab695, 2 µg/1x10^6 cells) for 30 minutes at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 minutes at 22ºC. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2 µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.

Anti-COX1 / Cyclooxygenase 1 antibody [5F6/F4] (ab695) at 1 µg/ml + COX1 protein standard prepared from ram seminal vesicles

COX1 protein standard prepared from ram seminal vesicles supplied by Alpha Diagnostic International.

Lane 1 MM.

Lane 2 Sample

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