

## DESCRIPTION

|                                                                                                                                                                                                         |                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                                   |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human COX-2 in Western blots.                                                                   |
| <b>Source</b>                                                                                                                                                                                           | Monoclonal Mouse IgG <sub>2B</sub> Clone # 495222                                                       |
| <b>Purification</b>                                                                                                                                                                                     | Protein A or G purified from hybridoma culture supernatant                                              |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant human COX-2<br>Ala18-Ser112 and Gln386-Leu604<br>Accession # P35354 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 488<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 515-545 nm                     |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                                            |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                                         |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>         | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunocytochemistry</b>  | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## BACKGROUND

Cyclooxygenase-2 (COX-2) also known as prostaglandin G/H synthase 2 (PGHS2) is a 70 kDa microsomal enzyme that belongs to the prostaglandin G/H synthase family. It is inducibly-expressed by a number of cell types, including fibroblasts, vascular smooth muscle cells, endothelium, and monocytes. Functionally, COX-2 is a homodimer that catalyzes two steps in the conversion of arachadonic acid to prostaglandin H<sub>2</sub>. Mature human COX-2 is 587 amino acids (aa) in length and contains one EGF-like domain (aa 18-55), a potential membrane interacting region (aa 277-292) and a globular catalytic domain (aa 293-604). At least one splice form exists that shows an 11 aa substitution for the C-terminal 451 amino acids. Over the amino acid range of the immunogen, human COX-2 shows 83% aa identity to mouse COX-2.

## PRODUCT SPECIFIC NOTICES

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