

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human/Mouse/Rat                                                                                                                                                                                                                                                             |
| <b>Specificity</b>        | Detects endogenous human, mouse and rat GPX2 in Western blots.                                                                                                                                                                                                              |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>2B</sub> Clone # 496010                                                                                                                                                                                                                           |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human Glutathione Peroxidase 2<br>Gly41-Ile190<br>Accession # P18283                                                                                                                                                                    |
| <b>Conjugate</b>          | Alexa Fluor 700<br>Excitation Wavelength: 675-700 nm<br>Emission Wavelength: 723 nm                                                                                                                                                                                         |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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.

**Western Blot** 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

Glutathione Peroxidase 2 (GPX2), also known as Gastrointestinal Glutathione Peroxidase, is a member of the glutathione peroxidase antioxidant enzyme family. These proteins protect cell surfaces, extracellular fluid components, and enzymes from oxidative stress by reducing hydrogen peroxide, lipid peroxides, and organic hydroperoxide using reduced glutathione. GPX2 is a cytoplasmic homotetramer of 22 kDa subunits, each containing a selenocysteine residue at the active site. GPX2 is primarily expressed in the liver and intestinal epithelial cells where it participates in the detoxification of dietary organic hydroperoxides. It is upregulated in a variety of carcinomas and functions as an anti-inflammatory and anti-apoptotic molecule. Over amino acids 41-190, human GPX2 shares 94% aa sequence identity with mouse and rat GPX2.

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