

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human Glutathione S-Transferase pi 1/GSTP1 in direct ELISAs and Western blots. Detects mouse and rat Glutathione S-Transferase pi 1/GSTP1 in Western Blots.                                                                                                         |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>2B</sub> Clone # 800027                                                                                                                                                                                                                           |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human Glutathione S-Transferase pi 1/GSTP1<br>Met1-Glu210<br>Accession # AAC51280                                                                                                                                                       |
| <b>Conjugate</b>          | Alexa Fluor 594<br>Excitation Wavelength: 590 nm<br>Emission Wavelength: 617 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.

|                            |                                                                        |
|----------------------------|------------------------------------------------------------------------|
| <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. |

#### 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 S-Transferases (GSTs) are members of the phase II detoxification enzyme family that conjugate glutathione to various electrophilic compounds, including metabolites generated by oxidative processes in the body, environmental toxins or carcinogens, and anti-cancer drugs. GSTP1 is a cytosolic protein that belongs to pi class of the GST superfamily. It is crystallized as a homodimer (1), but also exists in solution as an equilibrium mixture of monomer and dimer, depending on the protein concentration (2). Four genetic variants of GSTP1 with different enzymatic activities have been identified, which indicates the particular allelic form expressed in tissues could contribute to variation in catalytic efficiency and biological functions (3, 4). Human GSTP1 is present at elevated levels in many tumor cells, and has unique properties as a cancer marker (5). Genetic polymorphisms and expression patterns of GSTP1 have been associated with a variety of effects on human cancer, anti-cancer drug resistance, and asthma (6). In addition to its role as a drug-metabolizing enzyme, GSTP1 has ligand binding properties and regulates kinase signaling pathways through protein-protein interactions (7).

#### PRODUCT SPECIFIC NOTICES

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