

**DESCRIPTION**

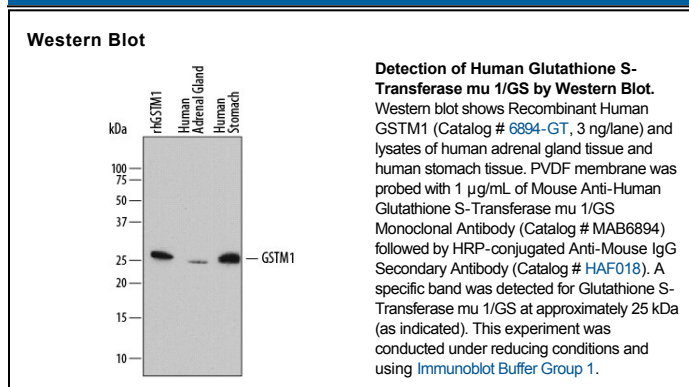
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Glutathione S-Transferase mu 1/GSTM1 in ELISAs.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 842516
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human Glutathione S-Transferase mu 1/GSTM1 Met1-Lys218 Accession # P09488
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

**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>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 µg/mL	See Below

**DATA**



**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 mg/mL.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**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. GSTM1 is a cytosolic protein that belongs to the mu class of the GST superfamily. The gene encoding GSTM1 is mapped onto human chromosome 1p13.3 and is known to be highly polymorphic (1). Mostly notably, the widely occurring GSTM1-null genotype has been linked to a variety of cancers including lung (2), gastric (3), bladder (4) and prostate (5). In addition to its role in releasing oxidative stress, GSTM1 has also been suggested to act as a hormone binding protein and play a role in maintaining hormone homeostasis in the body (6, 7).

**References:**

1. Pearson, W. R. *et al.* (1993) *Am. J. Hum. Genet.* **53**:220.
2. Mohr, L.C. *et al.* (2003) *Anticancer. Res.* **23**:2111.
3. Wang, H. *et al.* (2010) *Dig. Dis. Sci.* **55**:1824.
4. Engel, L. S. *et al.* (2002) *Am. J. Epidemiol.* **156**:95.
5. Mo, Z. *et al.* (2009) *Prostate.* **69**:662.
6. Mukherjee, S. B. *et al.* (1999) *Biochem. J.* **340**:309.
7. Ishigaki, S. *et al.* (1989) *Arch. Biochem. Biophys.* **273**:265.