

# Recombinant Mouse Glutathione S-transferase Mu 1, His-tagged

**Cat. No.** Gstm1-124M    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant GSTM1 protein was expressed in E.coli and purified by using conventional chromatography techniques, 25.9 kDa (218 aa) (Real molecular weight on SDS-PAGE will be shift up).
<b>Species</b>	Mouse
<b>Source</b>	E.coli
<b>Description</b>	GSTM1 is a glutathione S-transferase that belongs to the mu class. This enzyme acts by catalyzing the reaction of glutathione with an acceptor molecule to form an S-substituted glutathione (S=sulfur). The reactions utilizing glutathione contribute the transformation of a wide variety of electrophiles, including reactive products of lipid, protein, carcinogens, therapeutic drugs, environmental toxins, and products of oxidative stress.
<b>Sequences of amino acids</b>	MPMILGYWNV RGLTHPIRML LEYTDSSYDE KRYTMGDAPD FDRSQWLNEK FKLGLDFPNL PYLIDGSHKI TQSNAILRYL ARKHHL DGET EEERIRADIV ENQVMDTRMQ LIMLCYNPDF EKQKPEFLKT IPEKMKLYSE FLGKRPWFAG DKVTYVDFLA YDILDQYRMF EPKCLDAFPN LRDFLARFEG LKKISAYMKS SRYIATPIFS KMAHWSNK
<b>Formulation</b>	Liquid. In PBS (pH7.4) containing 5 mM glutathione
<b>Purity</b>	> 95% by SDS - PAGE

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>Concentration</b>	1 mg/ml (determined by Bradford assay)
<b>Endotoxin Level</b>	< 1.0 EU per 1 µg of protein (determined by LAL method)
<b>Biological activity</b>	Specific activity is 3 units/mg, and is defined as the amount of enzyme that conjugate 1.0 u mole of 1-chloro-2,4-dinitrobenzene (CDNB) with reduced glutathione per minute at pH 6.5 at 25°C.
<b>Activity Assay</b>	1. Prepare a 1.mll reaction mix into a suitable container: The final concentrations are 97 mM potassium phosphate, 0.97 mM EDTA, 2.5 mM glutathione, reduced, 1.0 mM 1-chloro-2,4-dinitrobenzene (CDNB), 3.2% (v/v) ethanol. 2. Equilibrate to 25°C and monitor the A340nm until the value is constant using a spectrophotometer. 3. Add 50ug of recombinant mouse GSTM1 protein with various concentrations (1ug, 2ug, 5ug) in 950ul reaction buffer. 4. Record the increase in A340nm for 5 minutes.
<b>Storage</b>	Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">Gstm1 glutathione S-transferase, mu 1 [ Mus musculus ]</a>
<b>Synonyms</b>	EC 2.5.1.18; GSTM1-1; GSTM1a-1a; GSTM1b-1b; GTH4; H-B; GST1; MGC26563; MU; OTTHUMP00000013346; OTTHUMP00000013347; GST class-mu 1; HB subunit 4; S-(hydroxyalkyl)glutathione lyase; glutathione S-alkyltransferase; glutathione S-aralkyltransferase; glutathione S-aryltransferase; glutathione S-transferase M1; glutathione S-transferase mu 1; Gstb1; Gstb-1; Gstm1; glutathione S-transferase mu 1; GTM1; MU-1; OTTMUSP00000007628; glutathione-S-transferase, mu 1
<b>Gene ID</b>	<a href="#">14862</a>

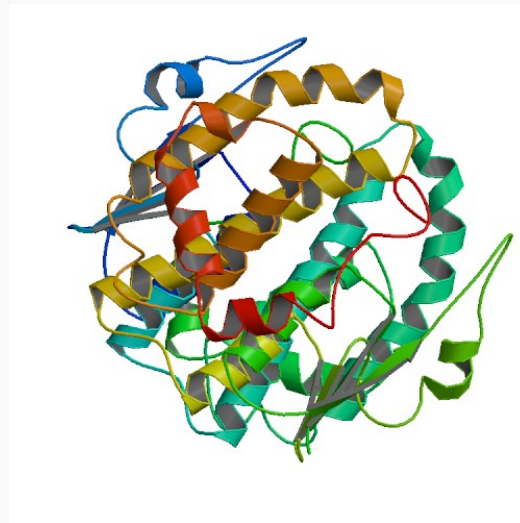
 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>mRNA Refseq</b>	NM_010358
<b>Protein Refseq</b>	NP_034488
<b>UniProt ID</b>	P10649
<b>Chromosome Location</b>	3 F2.3
<b>Pathway</b>	Glutathione metabolism; Metabolism of xenobiotics by cytochrome P450
<b>Function</b>	glutathione transferase activity ; transferase activity

PDBrendering based on 1gtu. Available structures: 1gtu, 1xw6, 1x



 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA