

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

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

SPECIFICATION

Product Overview	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).
Species	Mouse
Source	E.coli
Description	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.
Sequences of amino acids	MPMILGYWNV RGLTHPIRML LEYTDSSYDE KRYTMGDAPD FDRSQWLNEK FKLGLDFPNL PYLIDGSHKI TQSNAILRYL ARKHHLDGGET EEERIRADIV ENQVMDTRMQ LIMLCYNPDF EKQKPEFLKT IPEKMKLYSE FLGKRPWFAG DKVTYVDFLA YDILDQYRMF EPKCLDAFPN LRDFLARFEG LKKISAYMKS SRYIATPIFS KMAHWSNK
Formulation	Liquid. In PBS (pH7.4) containing 5 mM glutathione
Purity	> 95% by SDS - PAGE

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Concentration	1 mg/ml (determined by Bradford assay)
Endotoxin Level	< 1.0 EU per 1 µg of protein (determined by LAL method)
Biological activity	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.
Activity Assay	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.
Storage	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

Gene Name	Gstm1 glutathione S-transferase, mu 1 [Mus musculus]
Synonyms	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
Gene ID	14862

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

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

