

Active Recombinant Mouse Glutathione S-Transferase, Mu 1

Cat. No. Gstm1-1325M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	GSTM1 Mouse Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 218 amino acids and having a molecular mass of 25.9 kDa. The GTM1 is purified by proprietary chromatographic techniques.
Species	Mouse
Source	Mouse
Description	Cytosolic and membrane-bound types of GST are encoded by 2 different supergene families. There are 8 classes of the soluble cytoplasmic mammalian GST: alpha, kappa, mu, omega, pi, sigma, theta and zeta. The mu class of enzymes functions in the detoxification of electrophilic compounds, including carcinogens, therapeutic drugs, environmental toxins and products of oxidative stress, by conjugation with glutathione. The genes encoding the mu class of enzymes are arranged in a gene cluster on chromosome 1p13.3 and are highly polymorphic. These genetic differences can change an individual's resistance to carcinogens and toxins as well as affect the toxicity and efficacy of certain drugs. Null mutations of this class mu gene have been linked with the rise in a number of cancers.
Form	The GSTM1 solution contains PBS pH-7.4 & 5mM glutathione.
Purity	Greater than 95.0% as determined by SDS-PAGE.
Bio-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

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minute at pH 6.5 at 25°C.

Physical Appearance Sterile Filtered colorless solution.

Amino acid sequence

MPMILGYWNV RGLTHPIRML LEYTDSSYDE KRYTMGDAPD FDRSQWLNEK
FKLGLDFPNL PYLIDGSHKI TQSNAILRYL ARKHHLDTGET EEERIRADIV
ENQVMDTRMQ LIMLCYNPDF EKQKPEFLKT IPEKMKLYSE FLGKRPWFAG
DKVTYVDFLA YDILDQYRMF EPKCLDAFPN LRDFLARFEG LKKISAYMKS
SRYIATPIFS KMAHWSNK.

Storage

GSTM11 although stable 4°C for 4 weeks, should be stored desiccated below -18°C.
For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).
Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name [Gstm1 glutathione S-transferase, mu 1 \[Mus musculus \]](#)

Official Symbol [Gstm1](#)

Synonyms

Gstm1; glutathione S-transferase, mu 1; glutathione-S-transferase, mu 1; 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; GTM1; MU-1; OTTMUSP00000007628

Gene ID [14862](#)

mRNA Refseq [NM_010358](#)

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Protein Refseq	NP_034488
UniProt ID	P10649
Chromosome Location	3 F2.3; 3
Pathway	Glutathione metabolism; Metabolism of xenobiotics by cytochrome P450
Function	glutathione transferase activity ; transferase activity
PDB rendering based on 1gtu.	