
Product Data Sheet

Product Name: GSTM5 Human, Active

Cat. No.: GP21750

Batch No.: 1

Product Data

Purity	>98%	Source	E.coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Glutathione S-transferase mu 5; GSTM5-5; GST class-mu 5; GTM5; glutathione S-alkyltransferase M5; S-(hydroxyalkyl) glutathione lyase M5; EC 2.5.1.18.		
Amino Acid Sequence	MGSSHHHHHH SSGLVPRGSH MGSHPMTLG YWDIRGLAHA IRLLEYTDS SYVEKKYTLG DAPDYDRSQWLNEKFKLGLD FPNLPYLIDG AHKITQSNAI LRYIARKHNL CGETEEEEKIR VDILENQVMD NHMELVRLCYDPDFEKLKPK YLEELPEKLG LYSEFLGKRP WFAGDKITFV DFLAYDVLDL KRIFEPKCLD AFLNLKDFISRFEGLLKISA YMKSSQFLRG LLFGKSATWN SK.		
Formulation	The GSTM5 solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 0.1M NaCl, 1mM DTT and 10% glycerol.		

Introduction

Glutathione S-transferase mu 5 (GSTM5) belongs to the glutathione s-transferase (GST) family of proteins. There are 8 families of GST proteins, specifically alpha, kappa, mu, omega, pi, sigma, theta and zeta, each of which is comprised of proteins which have various functions throughout the cell. GSTM5 belongs to the mu class of enzymes which function in the detoxification of electrophilic compounds, including carcinogens, therapeutic drugs, environmental toxins and products of oxidative stress, by conjugation with glutathione. GSTM5 has an imperative role in detoxification. GSTM5 conjugates reduced glutathione to a large number of exogenous and endogenous hydrophobic electrophiles.

Biological Activity

Specific activity is > 90,000 pmol/min/ug, and is defined as the amount of enzyme that conjugate 1.0 u mole of 1-chloro-2,4- dinitrobenzene(CDNB) with reduced glutathione

Caution: Product has not been fully validated for medical applications. For research use only.

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per minute at pH 6.5 at 25C.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

GSTM5 Human Recombinant produced in E. coli is a single polypeptide chain containing 242 amino acids (1-218) and having a molecular mass of 28.2 kDa. GSTM5 is fused to a 24 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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