
Product Data Sheet

Product Name: GSTM2 Human
 Cat. No.: GP21746
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Glutathione S-transferase Mu 2; GST class-mu 2; GSTM2-2; GSTM2; GST4; GSTM; GTHMUS; MGC117303.		
Amino Acid Sequence	MGSSHHHHHH SSGLVPRGSH MPMTLGYWNI RGLAHSIRLL LEYTDSSYEE KKYTMGDAPD YDRSQWLNEK FKLGLDFPNL PYLIDGTHKI TQSNAILRYI ARKHNLCGES EKEQIREDIL ENQFMDSRMQ LAKLCYDPDF EKLKPEYLQA LPEMLKLYSQ FLGKQPWFLG DKITFVDFIA YDVLERNQVF EPSCLDAFPN LKDFISRFEG LEKISAYMKS SRFLPRPVFT KMAVWGNK.		
Formulation	The GSTM2 solution (0.5mg/ml) contains 20mM Tris-HCl buffer (pH8.0), 10% glycerol, 0.1M NaCl and 1mM DTT.		

Introduction

Glutathione S-transferase Mu 2 (GSTM2) belongs to the glutathione s-transferase (GST) family of proteins. GSTM2 is a glutathione S-transferase that belongs to the mu class. There are 8 families of GST proteins, specifically: alpha, kappa, mu, omega, pi, sigma, theta and zeta, each of which is composed of proteins that have various functions throughout the cell. 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 structured in a gene cluster on chromosome 1p13.3 and are proven to be highly polymorphic. These genetic variants can change an individual's susceptibility to carcinogens and toxins as well as have an effect on the toxicity and efficacy of several drugs.

Biological Activity

Specific activity is < 25 units/mg, and is defined as the amount of enzyme that

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conjugate 1.0 μ mole of 1-chloro-2,4-dinitrobenzene (CDNB) with reduced glutathione per minute at pH 6.5 at 25°C .

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

GSTM2 Human Recombinant fused with a 20 amino acid His tag at N-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 238 amino acids (1-218 a.a.) and having a molecular mass of 27.9kDa. The GSTM2 is purified by proprietary chromatographic techniques.

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