
Product Data Sheet

Product Name: GSTA1 Human

Cat. No.: GP21737

Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	GST2; GSTA1-1; GTH1; GSTA-1; GSTA1; GSTA-I; EC 2.5.1.18; Glutathione S-transferase A1; GST HA subunit 1; GST-epsilon; GST class-alpha member 1; GSTA1; MGC131939.		
Amino Acid Sequence	MAEKPKLHYF NARGRMESTR WLLAAAGVEF EEKFIKSAED LDKLRNDGYL MFQQVPMVEI DGMKLVQTRA ILNYIASKYN LYGKDIKERA LIDMYIEGIA DLGEMILLLP VCPPEEKDAK LALIKEKIKN RYFPAFEKVL KSHGQDYLVG NKLSRADIHL VELLYYVEEL DSSLISSFPL LKALKTRISN LPTVKKFLQP GSPRKPPMDE KSLEEARLIF RF.		
Formulation	The GSTA1 solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 1mM DTT and 10% glycerol.		

Introduction

Membrane-bound & Cytosolic forms of GST are encoded by 2 separate supergene families. These enzymes function in the detoxification of electrophilic compounds, including carcinogens, therapeutic drugs, environmental toxins and products of oxidative stress, by conjugation with glutathione. There are 8 different classes of soluble cytoplasmic mammalian GST: alpha, kappa, mu, omega, pi, sigma, theta and zeta. The GSTA1 is found in a cluster mapped to chromosome 6, and is highly expressed in the liver. GSTA1 protects the cells from reactive oxygen species.

Biological Activity

Specific activity is 5-8 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 .

Stability

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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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

GSTA1 Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 222 amino acids (1-222 a.a.) and having a molecular mass of 25.6 kDa. The GSTA1 is purified by proprietary chromatographic techniques.

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