

32-6787: GSTM5 Human, Active

Application : Functional Assay

Alternative Name : 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.

Description

Source: E.coli.

Sterile Filtered colorless solution.

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.

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.

Product Info

Amount : 2 µg / 10 µg

Purification : Greater than 95% as determined by SDS-PAGE.

Content : The GSTM5 solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 0.1M NaCl, 1mM DTT and 10% glycerol.

Storage condition : 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.

Amino Acid : MGSSHHHHHH SSGLVPRGSH MGSHMPMTLG YWDIRGLAHA IRLLEYTDS SYVEKKYTLG
DAPDYDRSQW LNEFKLGLD FPNLPYLIDG AHKITQSNAI LRYIARKHNL CGETEEEKIR VDILENQVMD
NHMELVRLCY DPDFEKLKPK YLEELPEKPK LYSEFLGKRP WFAGDKITFV DFLAYDVLDM KRIFEPKCLD
AFLNLKDFIS RFEGLKKISA YMKSSQFLRG LFLGKSATWN SK.

Application Note

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 per minute at pH 6.5 at 25C.