9853 Pacific Heights Blvd.
Suite D. San Diego,
CA 92121, USA
Tel: 858-263-4982
Email: info@abeomics.com

32-6788: GSTP1 Mouse

Application : Functional Assay
Alternative Name : Glutathione S-transferase P 1, Gst P1, GST YF-YF, GST class-pi, GST-piB, Preadipocyte growth factor.

Description

Source: Escherichia Coli.
Sterile Filtered colorless solution.
GSTP1 is a polymorphic gene encoding active, functionally different GSTP1 variant proteins that are believed to function in xenobiotic metabolism and have a part in susceptibility to cancer, and other diseases. GSTP1 is a glutathione S-transferase belonging to the pi class. GST family enzymes play a significant role in detoxification by catalyzing the conjugation of many hydrophobic and electrophilic compounds with reduced glutathione. Based upon the biochemical, immunologic and structural properties of the soluble GSTs they are grouped into 4 main classes: alpha, mu, pi, and theta. The GSTP1 enzyme acts by catalyzing the reaction of glutathione with an acceptor molecule to form a Sulfur-substituted glutathione. The reactions employing glutathione contribute the transformation of a broad range of electrophiles, including reactive products of lipid, protein, carcinogens, therapeutic drugs, environmental toxins, and products of oxidative stress.The GSTP1 inactivation through CpG hypermethylation is frequent in pituitary adenomas and may be a factor in aggressive pituitary tumor behavior. GSTP1 is may be a transcriptional target of the p53 tumor suppressor gene. Single-nucleotide polymorphism in GSTP1 is linked to modified protein binding, which influence GSTP1's contribution to carcinogen and drug metabolism, and possibly disease pathogenesis and/or drug response. GST-pi might have central roles in proliferation of androgen-independent human prostate cancer cells.
GSTP1 Mouse Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 233 amino acids (1-210 a.a) and having a molecular mass of 26kDa. GSTP1 is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

Product Info

Amount :	5 µg / 20 µg
Purification :	Greater than 90.0% as determined by SDS-PAGE.
Content :	GSTP1 protein solution (1mg/ml) containing Phosphate Buffered Saline (pH 7.4) 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 MGSMPPYTIV YFPVRGRCEA MRMLLADQGQ SWKEEVVTID TWMQGLLKPT CLYGQLPKFE DGDLTLYQSN AILRHLGRSL GLYGKNQREA AQMDMVNDGV EDLRGKYVTL IYTNYENGKN DYVKALPGHL KPFETLLSQN QGGKAFIVGD QISFADYNLL DLLLIHQVLA PGCLDNFPLL SAYVARLSAR PKIKAFLSSP EHVNRPINGN GKQ.

Application Note

Specific activity is > 40 units/mg, and is defined as the amount of enzyme that conjugate 1.0 umole of 1-chloro-2,4-dinitrobenzene (CDNB) with reduced glutathione per minute at pH 6.5 at 25C.

For Research Use Only. Not for use in diagnostic/therapeutics procedures.