Bioactive Full-Length

GSTM5 (Human) Recombinant Protein

Catalog # P7942 Size 100 ug

Applications

Specification

Product Description	Human GSTM5 (P46439, 1 a.a. - 218 a.a.) full length recombinant protein with His tag expressed in *Escherichia coli*.
Sequence	MPMTLGYWDIRGLAHAIRLLLEYTDSSYVEKKYTLGDAPDYDRSQWLNEKFKLGLDFPNLPYLIDG AHKITQSNAILRYIARKHNLCGETEEEKIRVDILENQVMDNHMELVRLCYDPDFEKLKPKYLEELPE KLKLYSEFLGKRPWFAGDKITFVDFLAYDVLDMKRIFEPKCLDAFLNLKDFISRFEGLKKISAYMKS SQFLRGLLFGKSATWNSK
Host	Escherichia coli
Theoretical MW (kDa)	28.2
Form	Liquid
Preparation Method	*Escherichia coli* expression system
Purity	> 95% by SDS-PAGE
Activity	Specific activity is > 90000 pmol/min/ug, 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 25°C.
Quality Control Testing	3 ug by SDS-PAGE under reducing condition and visualized by Coomassie blue stain.
Storage Buffer	In 20mM Tris-HCl pH 8.0 (10% glycerol, 0.1 M NaCl, 1 mM DTT)

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Storage Instruction	Store at 2°C to 8°C for 1 week. For long term storage, aliquot and store at -20°C to -80°C. Aliquot to avoid repeated freezing and thawing.

Applications

- Functional Study
- SDS-PAGE

Gene Info — GSTM5

Entrez GeneID	2949
Protein Accession#	P46439
Gene Name	GSTM5
Gene Alias	GSTM5-5, GTM5
Gene Description	glutathione S-transferase mu 5
Omim ID	138385
Gene Ontology	Hyperlink
Gene Summary	Cytosolic and membrane-bound forms of glutathione S-transferase are encoded by two distinct s upergene families. At present, eight distinct classes of the soluble cytoplasmic mammalian glutath ione S-transferases have been identified: alpha, kappa, mu, omega, pi, sigma, theta and zeta. Thi s gene encodes a glutathione S-transferase that belongs to the mu class. The mu class of enzyme s functions in the detoxification of electrophilic compounds, including carcinogens, therapeutic dru gs, environmental toxins and products of oxidative stress, by conjugation with glutathione. The gen es encoding the mu class of enzymes are organized in a gene cluster on chromosome 1p13.3 an d are known to be highly polymorphic. These genetic variations can change an individual's suscep tibility to carcinogens and toxins as well as affect the toxicity and efficacy of certain drugs. Diversif ication of these genes has occurred in regions encoding substrate-binding domains, as well as in tissue expression patterns, to accommodate an increasing number of foreign compounds. [provid ed by RefSeq
Other Designations	GST class-mu 5|OTTHUMP00000013359|S-(hydroxyalkyl)glutathione lyase M5|glutathione S-alkyl transferase M5|glutathione S-aralkyltransferase M5|glutathione S-aryltransferase M5|glutathione S -transferase M5

Pathway

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- Drug metabolism - cytochrome P450
- Glutathione metabolism
- Metabolism of xenobiotics by cytochrome P450

Disease

- Alzheimer disease
- Breast Neoplasms
- Cognition
- Coronary Artery Disease
- Coronary Disease
- Genetic Predisposition to Disease
- Head and Neck Neoplasms
- Hypertension
- Lung Neoplasms
- Neoplasm Recurrence
- Neoplasms
- Prenatal Exposure Delayed Effects

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