

## Recombinant Human GSTM5, GST-tagged

Cat. No. GSTM5-27772TH Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Recombinant full length Human GSTM5 with a N terminal proprietary tag: predicted molecular weight 50.05 kDa.

**Species** Human

**Source** Wheat Germ

**ProteinLength** 218 amino acids

#### Description

Cytosolic and membrane-bound forms of glutathione S-transferase are encoded by two distinct supergene families. At present, eight distinct classes of the soluble cytoplasmic mammalian glutathione S-transferases have been identified: alpha, kappa, mu, omega, pi, sigma, theta and zeta. This gene encodes a glutathione S-transferase that belongs to the mu class. 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 organized in a gene cluster on chromosome 1p13.3 and are known to be highly polymorphic. These genetic variations can change an individuals susceptibility to carcinogens and toxins as well as affect the toxicity and efficacy of certain drugs. Diversification 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.

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<b>Conjugation</b>	GST
<b>Molecular Weight</b>	50.050kDa inclusive of tags
<b>Form</b>	Liquid
<b>Purity</b>	Proprietary Purification
<b>Storage buffer</b>	pH: 8.00 Constituents: 0.3% Glutathione, 0.79% Tris HCl
<b>Storage</b>	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
<b>Sequences of amino acids</b>	MPMTLGYWDIRGLAHAIRLLLEYPDSSYVEKKYTLGDAPD YDRSQWLNEKFKLGLD FPNLPYLIDGAHKITQSNAILRYI ARKHNLCGETEEEEKIRVDILENQVMDNHMELVRL CYDPDF EKLKPKYLEELPEKLLKLYSEFLGKRPWFAGDKITFVDFLA YDVLDMKRIFE PKCLDAFLNLKDFISRFEGLKKISAYMKS SQFLRGLLFGKSATWNSK
<b>Sequence Similarities</b>	Belongs to the GST superfamily. Mu family. Contains 1 GST C-terminal domain. Contains 1 GST N-terminal domain.

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">GSTM5 glutathione S-transferase mu 5 [ Homo sapiens ]</a>
<b>Official Symbol</b>	<a href="#">GSTM5</a>
<b>Synonyms</b>	GSTM5; glutathione S-transferase mu 5; glutathione S transferase M5; glutathione S-transferase Mu 5;
<b>Gene ID</b>	<a href="#">2949</a>

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<b>mRNA Refseq</b>	NM_000851
<b>Protein Refseq</b>	NP_000842
<b>MIM</b>	138385
<b>Uniprot ID</b>	P46439
<b>Chromosome Location</b>	1p13.3
<b>Pathway</b>	Biological oxidations, organism-specific biosystem; Drug metabolism - cytochrome P450, organism-specific biosystem; Drug metabolism - cytochrome P450, conserved biosystem; Glutathione conjugation, organism-specific biosystem; Glutathione metabolism, organism-specific biosystem;
<b>Function</b>	glutathione transferase activity; transferase activity;

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