

## Recombinant Human GSTM3 cell lysate

Cat. No. GSTM3-759HCL Lot. No. (See product label)

### SPECIFICATION

**Species**

Human

**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. Mutations of this class mu gene have been linked with a slight increase in a number of cancers, likely due to exposure with environmental toxins. Alternative splicing results in multiple transcript variants.

**Size**

100 ul

**Storage Buffer**

1X Sample Buffer (50 mM Tris-HCl, 2% SDS, 10% glycerol, 300 mM 2-mercaptoethanol, 0.01% Bromophenol blue)

**Applications**

Western Blot;

### GENE INFORMATION

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<b>Gene Name</b>	GSTM3 glutathione S-transferase mu 3 (brain) [ Homo sapiens ]
<b>Official Symbol</b>	GSTM3
<b>Synonyms</b>	GSTM3; glutathione S-transferase mu 3 (brain); glutathione S transferase M3 (brain); glutathione S-transferase Mu 3; GST5; hGSTM3-3; brain GST; GST class-mu 3; glutathione S-transferase, Mu-3; glutathione S-aryltransferase M3; glutathione S-alkyltransferase M3; glutathione S-aralkyltransferase M3; S-(hydroxyalkyl)glutathione lyase M3; glutathione S-transferase M3 (brain); brain type mu-glutathione S-transferase; GSTB; GTM3; GSTM3-3; MGC3310; MGC3704;
<b>Gene ID</b>	2947
<b>mRNA Refseq</b>	NM_000849
<b>Protein Refseq</b>	NP_000840
<b>MIM</b>	138390
<b>UniProt ID</b>	P21266
<b>Chromosome Location</b>	1p13.3
<b>Pathway</b>	Diurnally regulated genes with circadian orthologs, organism-specific biosystem; Drug metabolism - cytochrome P450, organism-specific biosystem; Drug metabolism - cytochrome P450, conserved biosystem; Glutathione metabolism, organism-specific biosystem; Glutathione metabolism, conserved biosystem; Metabolism of xenobiotics by cytochrome P450, organism-specific biosystem; Metabolism of xenobiotics by cytochrome P450, conserved biosystem;

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**Function**

glutathione transferase activity; identical protein binding; transferase activity;

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