

Recombinant Human GATM, His-tagged

Cat. No. GATM-13171H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human GATM protein, fused to His-tag, was expressed in E.coli and purified by Ni-sepharose.

Species Human

Source E.coli

ProteinLength C-term-350a.a.

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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Storage	The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing cycles.
Storage Buffer	1M PBS (58mM Na ₂ HPO ₄ , 17mM NaH ₂ PO ₄ , 68mM NaCl, pH8.) added with 300mM Imidazole and 0.7% Sarcosyl, 15% glycerol.
GENE INFORMATION	
Gene Name	GATM glycine amidinotransferase (L-arginine:glycine amidinotransferase) [Homo sapiens]
Official Symbol	GATM
Synonyms	GATM; glycine amidinotransferase (L-arginine:glycine amidinotransferase); glycine amidinotransferase, mitochondrial; AGAT; transamidinase; L-arginine:glycine amidinotransferase; AT;
Gene ID	2628
mRNA Refseq	NM_001482
Protein Refseq	NP_001473
MIM	602360
UniProt ID	P50440
Chromosome Location	15q15.1
Pathway	Arginine and proline metabolism, organism-specific biosystem; Arginine and proline

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metabolism, conserved biosystem; Creatine metabolism, organism-specific biosystem; Creatine pathway, organism-specific biosystem; Creatine pathway, conserved biosystem; Glycine, serine and threonine metabolism, organism-specific biosystem; Glycine, serine and threonine metabolism, conserved biosystem;

Function

glycine amidinotransferase activity; glycine amidinotransferase activity; hydrolase activity, acting on carbon-nitrogen (but not peptide) bonds, in linear amidines; transferase activity;

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