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GSTM1 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a partial recombinant GSTM1.
Catalog # AT2278a

Product Information

Application	E
Primary Accession	P09488
Other Accession	BC024005
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG2a Kappa
Clone Names	3B10
Calculated MW	25712

Additional Information

Gene ID	2944
Other Names	Glutathione S-transferase Mu 1, GST HB subunit 4, GST class-mu 1, GSTM1-1, GSTM1a-1a, GSTM1b-1b, GTH4, GSTM1, GST1
Target/Specificity	GSTM1 (AAH24005, 1 a.a. ~ 100 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	GSTM1 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

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 individual's susceptibility to carcinogens and toxins as well as affect the toxicity and efficacy of certain drugs. Null mutations of this class mu gene have been linked with an increase in a number of cancers, likely due to an increased susceptibility to environmental toxins and carcinogens. Multiple protein

isoforms are encoded by transcript variants of this gene.

References

Genetic polymorphisms of cytochrome P450 and glutathione S-transferase associated with antituberculosis drug-induced hepatotoxicity in Chinese tuberculosis patients. Wang T, et al. J Int Med Res, 2010 May-Jun. PMID 20819434.Polymorphic DNA repair and metabolic genes: a multigenic study on gastric cancer. Palli D, et al. Mutagenesis, 2010 Sep 3. PMID 20817763.Maternal Nrf2 and gluthathione-S-transferase polymorphisms do not modify associations of prenatal tobacco smoke exposure with asthma and lung function in school-aged children. Henderson AJ, et al. Thorax, 2010 Oct. PMID 20805158.Glutathione S-transferase M1 (GSTM1) genotype but not GSTT1 or MC1R genotype influences erythemal sensitivity to narrow band (TL-01) UVB phototherapy. Smith G, et al. Pharmacogenet Genomics, 2010 Aug 26. PMID 20802377.Evidence that polymorphic deletion of the glutathione s-transferase gene, GSTM1, is associated with esophageal atresia. Filonzi L, et al. Birth Defects Res A Clin Mol Teratol, 2010 Aug 25. PMID 20740495.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.