

GSTM1 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1646a

Specification

GSTM1 Antibody - Product Information

Application	E, WB, IHC, FC
Primary Accession	P09488
Reactivity	Human, Rat
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	26kDa KDa

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 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.

Immunogen

Purified recombinant fragment of human GSTM1 expressed in E. Coli.

Formulation

Ascitic fluid containing 0.03% sodium azide.

GSTM1 Antibody - Additional Information

Gene ID 2944

Other Names

Glutathione S-transferase Mu 1, 2.5.1.18, GST HB subunit 4, GST class-mu 1, GSTM1-1, GSTM1a-1a, GSTM1b-1b, GTH4, GSTM1, GST1

Dilution

E~~1/10000
WB~~1/500 - 1/2000
IHC~~1/200 - 1/1000
FC~~1/200 - 1/400

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small

aliquots to prevent freeze-thaw cycles.

Precautions

GSTM1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

GSTM1 Antibody - Protein Information

Name GSTM1 ([HGNC:4632](#))

Synonyms GST1

Function

Conjugation of reduced glutathione to a wide number of exogenous and endogenous hydrophobic electrophiles. Involved in the formation of glutathione conjugates of both prostaglandin A2 (PGA2) and prostaglandin J2 (PGJ2) (PubMed: [9084911](http://www.uniprot.org/citations/9084911)). Participates in the formation of novel hepxilin regioisomers (PubMed: [21046276](http://www.uniprot.org/citations/21046276)).

Cellular Location

Cytoplasm.

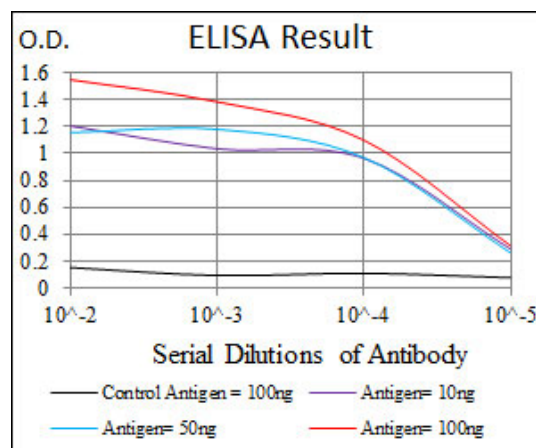
Tissue Location

Liver (at protein level).

GSTM1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)



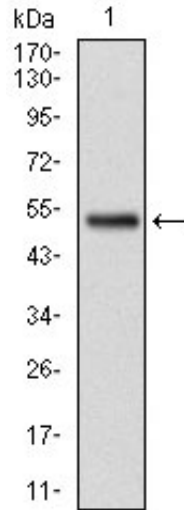


Figure 1: Western blot analysis using GSTM1 mAb against human GSTM1 (AA: 23-181) recombinant protein. (Expected MW is 25.7 kDa)

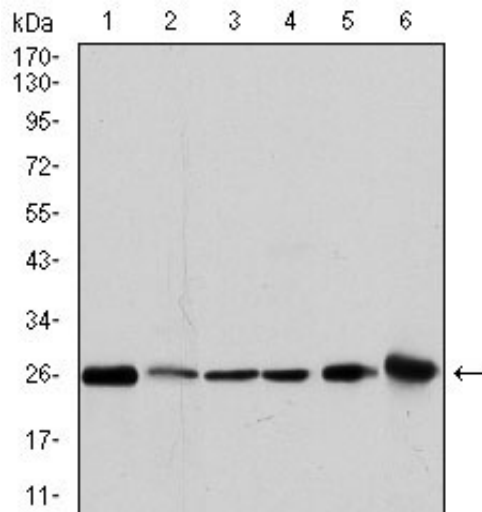


Figure 2: Western blot analysis using GSTM1 mouse mAb against MCF-7 (1), PC-12 (2), Jurkat (3), HeLa (4), HL7702 (5) and HepG2 (6) cell lysate.

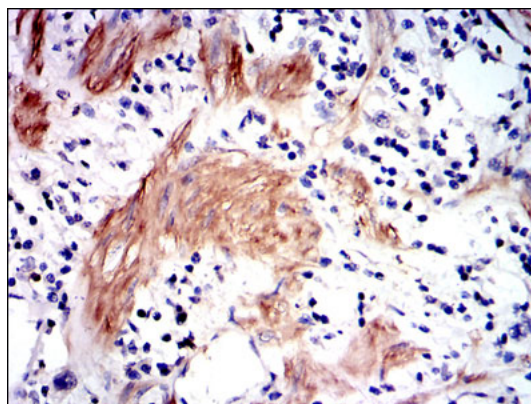


Figure 3: Immunohistochemical analysis of paraffin-embedded stomach cancer tissues using GSTM1 mouse mAb with DAB staining.

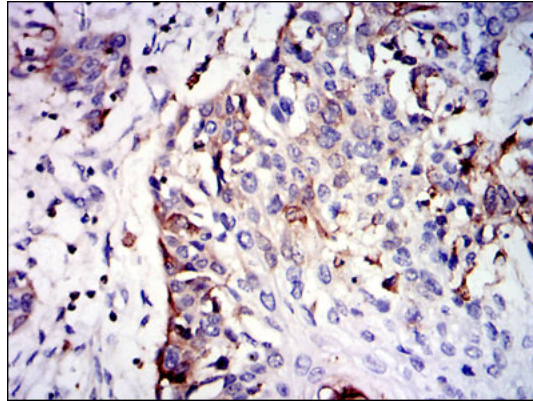


Figure 4: Immunohistochemical analysis of paraffin-embedded esophageal cancer tissues using GSTM1 mouse mAb with DAB staining.

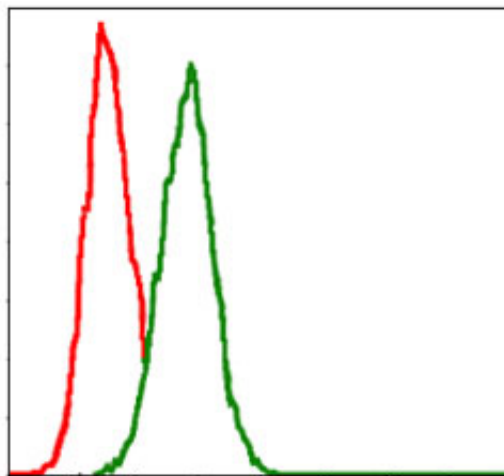


Figure 5: Flow cytometric analysis of Hela cells using GSTM1 mouse mAb (green) and negative control (red).

GSTM1 Antibody - References

1. J Exp Clin Cancer Res. 2009 Apr 1;28:46.
2. Cancer Prev Res (Phila). 2009 Apr;2(4):345-52.