

Mouse GSTM1 Monoclonal Antibody | anti-GSTM1 antibody

Anti-GSTM1 Antibody (monoclonal, 11F2)

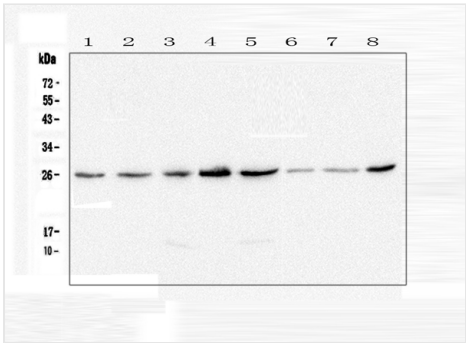
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125133	Mouse	Human, Mouse, Rat	Flow Cytometry, Functional Assay, Immunocytochemistry, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

GSTM1; Monoclonal Antibody; Anti-GSTM1 Antibody (monoclonal; 11F2); Glutathione S-transferase Mu 1; GST HB subunit 4; GST class-mu 1; GSTM1-1; GSTM1a-1a; GSTM1b-1b; GTH4; GST1; anti-GSTM1 antibody

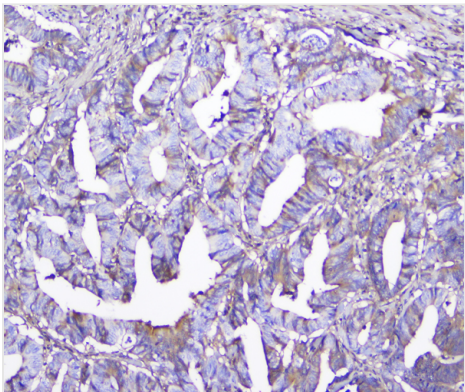
PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human, Mouse, Rat
Clonality	Monoclonal
Isotype	IgG1
Clone Number	11F2
Specificity	No cross reactivity with other proteins.
Purity/Purification	Immunogen Affinity Purified
Form/Format	Lyophilized ; Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Sequence Length	181
Applicable Applications for anti-GSTM1 antibody	FCM/FACS (Flow Cytometry), ICC (Immunocytochemistry), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthetic peptide corresponding to a sequence of human GSTM1 (EEEKIRVDIL ENQTMDNMQGLGMICYNPEFEKLIK).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Relevant Detection Systems	It is recommended to use an Enhanced Chemiluminescent Kit with anti-Rabbit IgG (please inquire) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (please inquire) for IHC-P, IHC-F and ICC.
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



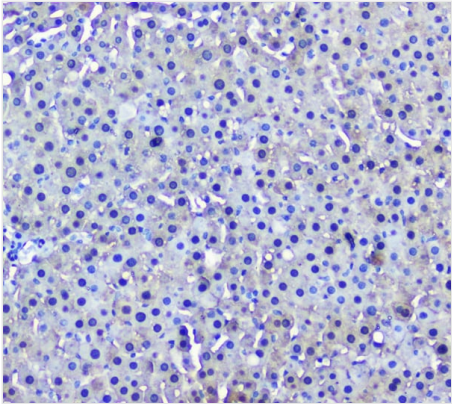
WB (Western Blot)

Figure 5. Western blot analysis of GSTM1 using anti-GSTM1 antibody (AAA125133). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human Hela, whole cell lysate, Lane 2: human T-47D whole cell lysate, Lane 3: rat brain tissue lysate, Lane 4: rat lung tissue lysate, Lane 5: rat stomach tissue lysate, Lane 6: mouse lung tissue lysate, Lane 7: mouse stomach tissue lysate, Lane 8: mouse kidney tissue lysate. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-GSTM1 antigen affinity purified monoclonal antibody at 0.5 ug/ml overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti- mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for GSTM1 at approximately 26KD. The expected band size for GSTM1 is at 26KD.



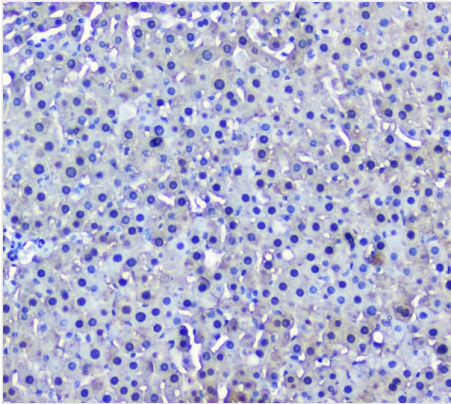
IHC (Immunohistochemistry)

Figure 4. IHC analysis of GSTM1 using anti-GSTM1 antibody (AAA125133). GSTM1 was detected in paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml mouse anti-GSTM1 Antibody (AAA125133) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



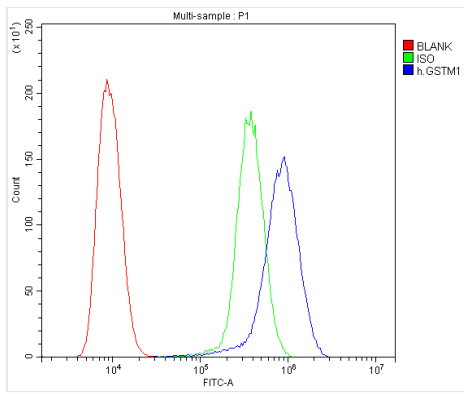
IHC (Immunohistochemistry)

Figure 3. IHC analysis of GSTM1 using anti-GSTM1 antibody (AAA125133). GSTM1 was detected in paraffin-embedded section of rat liver tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml mouse anti-GSTM1 Antibody (AAA125133) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 3. IHC analysis of GSTM1 using anti-GSTM1 antibody (AAA125133). GSTM1 was detected in paraffin-embedded section of rat liver tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml mouse anti-GSTM1 Antibody (AAA125133) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



FCM/FACS (Flow Cytometry)
 Figure 1. Flow Cytometry analysis of U2OS cells using anti-GSTM1 antibody (AAA125133).Overlay histogram showing U2OS cells stained with AAA125133 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-GSTM1 Antibody (AAA125133, 1ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-mouse IgG (BA1126, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was mouse IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

ADDITIONAL INFORMATION

Related Product Information for anti-GSTM1 antibody	Description: Mouse IgG monoclonal antibody for GSTM1 detection. Tested with WB, IHC-P, IHC-F, ICC, FCM in Human; Mouse; Rat. Background: Glutathione S-transferase Mu 1 (gene name GSTM1) is a human glutathione S-transferase. 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	1. Carless, M. A., Lea, R. A., Curran, J. E., Appleyard, B., Gaffney, P., Green, A., Griffiths, L. R. TheGSTM1 null genotype confers an increased risk for solar keratosis development in an Australian Caucasian population. J. Invest. Derm. 119: 1373-1378, 2002. 2. Zhong, S., Wyllie, A. H., Barnes, D., Wolf, C. R., Spurr, N. K. Relationship between theGSTM1 genetic polymorphism and susceptibility to bladder, breast and colon cancer.Carcinogenesis 14: 1821-1824, 1993.

NCBI AND UNIPROT INFORMATION

NCBI GI #	23065544
NCBI GeneID	2944
NCBI Accession #	NP_000552.2
NCBI GenBank Nucleotide #	NM_000561.3
UniProt Accession #	P09488; Q5GHG0; Q6FH88; Q8TC98; Q9UC96
NCBI Official Full Name	glutathione S-transferase Mu 1 isoform 1
NCBI Official Synonym Full Names	glutathione S-transferase mu 1
NCBI Official Symbol	GSTM1
NCBI Official Synonym Symbols	MU; H-B; GST1; GTH4; GTM1; MU-1; GSTM1-1; GSTM1a-1a; GSTM1b-1b
NCBI Protein Information	glutathione S-transferase Mu 1

UniProt Protein Name	Glutathione S-transferase Mu 1
UniProt Gene Name	GSTM1
UniProt Synonym Gene Names	GST1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/gstm1-antibody-clone-11f2-flow-cytometry-immunocytochemistry-immunohistochemistry-western-blot-elisa/125133>