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GSTA1 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a full length recombinant GSTA1.
Catalog # AT2275a

Product Information

Application	WB, IHC, E
Primary Accession	P08263
Other Accession	BC053578.1
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG1 Kappa
Clone Names	2F7
Calculated MW	25631

Additional Information

Gene ID	2938
Other Names	Glutathione S-transferase A1, GST HA subunit 1, GST class-alpha member 1, GST-epsilon, GSTA1-1, GTH1, Glutathione S-transferase A1, N-terminally processed, GSTA1
Target/Specificity	GSTA1 (AAH53578.1, 1 a.a. ~ 222 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 IHC~~1:100~500 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	GSTA1 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

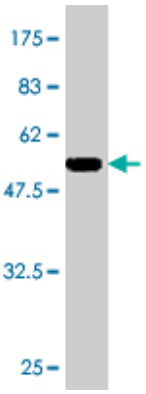
Cytosolic and membrane-bound forms of glutathione S-transferase are encoded by two distinct supergene families. These enzymes function in the detoxification of electrophilic compounds, including carcinogens, therapeutic drugs, environmental toxins and products of oxidative stress, by conjugation with glutathione. The genes encoding these enzymes 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 some drugs. 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-tranferase belonging to the alpha class. The alpha class genes, located in a cluster mapped to chromosome 6, are the most abundantly expressed glutathione S-transferases in liver. In addition to

metabolizing bilirubin and certain anti-cancer drugs in the liver, the alpha class of these enzymes exhibit glutathione peroxidase activity thereby protecting the cells from reactive oxygen species and the products of peroxidation.

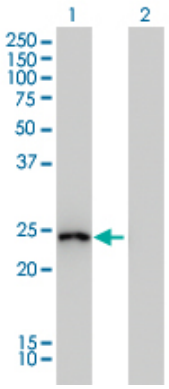
References

1.Redox Protein Expression Predicts Radiotherapeutic Response in Early-Stage Invasive Breast Cancer Patients.Woolston CM, Al-Attar A, Storr SJ, Ellis IO, Morgan DA, Martin SG.Int J Radiat Oncol Biol Phys. 2011 Feb 5. [Epub ahead of print]2.Overcoming Glutathione S-Transferase P1-Related Cisplatin Resistance in Osteosarcoma.Pasello M, Michelacci F, Scionti I, Hattinger CM, Zuntini M, Caccuri AM, Scotlandi K, Picci P, Serra M.Cancer Res. 2008 Aug 15;68(16):6661-8.

Images

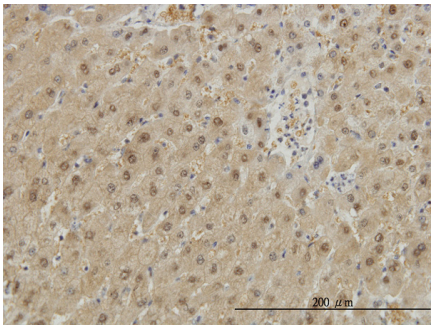


Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (50.16 KDa) .



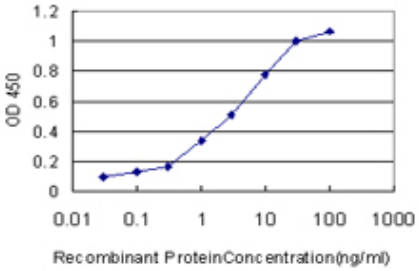
Western Blot analysis of GSTA1 expression in transfected 293T cell line by GSTA1 monoclonal antibody (M01), clone 2F7.

Lane 1: GSTA1 transfected lysate(26 KDa).
Lane 2: Non-transfected lysate.



Immunoperoxidase of monoclonal antibody to GSTA1 on formalin-fixed paraffin-embedded human liver. [antibody concentration 3 ug/ml]

Detection limit for recombinant GST tagged GSTA1 is approximately 0.1ng/ml as a capture antibody.



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