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GSTA1 Antibody (ascites)

Mouse Monoclonal Antibody (Mab)
Catalog # AM1932a

Product Information

Application	WB, E
Primary Accession	P08263
Other Accession	NP_665683.1
Reactivity	Mouse
Predicted	Bovine, Canine, Rabbit
Host	Mouse
Clonality	Monoclonal
Isotype	IgM,k
Clone Names	286CT8.1.5
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	This GSTA1 monoclonal antibody is generated from mouse immunized with GSTA1 recombinant protein.
Dilution	WB~~1:1000~32000 E~~Use at an assay dependent concentration.
Format	Mouse monoclonal antibody supplied in crude ascites with 0.09% (W/V) sodium azide.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	GSTA1 Antibody (ascites) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GSTA1
Function	Glutathione S-transferase that catalyzes the nucleophilic attack of the sulfur atom of glutathione on the electrophilic groups of a wide range of exogenous and endogenous compounds (Probable). Involved in the formation of glutathione conjugates of both prostaglandin A2 (PGA2) and prostaglandin J2

(PGJ2) (PubMed:9084911). It also catalyzes the isomerization of D5-androstene-3,17-dione (AD) into D4-androstene- 3,17-dione and may therefore play an important role in hormone biosynthesis (PubMed:11152686). Through its glutathione-dependent peroxidase activity toward the fatty acid hydroperoxide (13S)-hydroperoxy-(9Z,11E)-octadecadienoate/13-HPODE it is also involved in the metabolism of oxidized linoleic acid (PubMed:16624487).

Cellular Location Cytoplasm.

Tissue Location Liver.

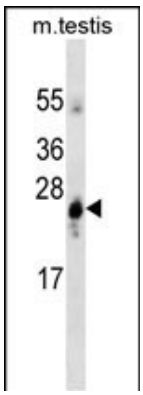
Background

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

Elhasid, R., et al. Pediatr Blood Cancer 55(6):1172-1179(2010) Hawken, S.J., et al. Hum. Genet. 128(1):89-101(2010) Oguztuzun, S., et al. Folia Histochem. Cytobiol. 48(1):122-127(2010) Eriksen, K.T., et al. J. Toxicol. Environ. Health Part A 73(9):583-595(2010) Nguyen, T.V., et al. Oncol. Res. 18(7):349-355(2010)

Images



GSTA1 (Cat. #AM1932a) western blot analysis in mouse testis tissue lysates (35µg/lane).This demonstrates the GSTA1 antibody detected the GSTA1 protein (arrow).

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