

Mouse Glutamine Synthetase Monoclonal Antibody | anti-GLUL antibody

Glutamine Synthetase

CATALOG # AAA59290	HOST Mouse	REACTIVITY Human (Predicted: Mouse, Rat)	APPLICATIONS Immunohistochemistry
------------------------------	----------------------	--	---

PRODUCT SYNONYMS

Glutamine Synthetase; Monoclonal Antibody; anti-GLUL antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human (Predicted: Mouse, Rat)
Clonality	Monoclonal
Isotype	IgG2a
Clone Number	GS-6
Form/Format	Anti-Glutamine Synthetase is a Mouse Monoclonal antibody derived from cell culture supernatant that is concentrated, dialyzed, filter sterilized and diluted in buffer pH 7.5, containing BSA and sodium azide as a preservative.
Sequence Length	373
Applicable Applications for anti-GLUL antibody	IHC (Immunohistochemistry)
Localization	Cytoplasmic
Control	Liver, Tonsil, Testis, Prostate, Hepatocellular Carcinoma, Bladder TCC
Intended Use	This antibody is intended for use in Immunohistochemical applications on formalin-fixed paraffin-embedded tissues (FFPE), frozen tissue sections and cell preparations.
Immunogen	Human Glutamine Synthetase aa. 1-373.
Precautions	1. This product contains <0.1% sodium azide (NaN₃) as a preservative. Ensure proper handling procedures are used with this reagent. 2. Always wear personal protective equipment such as a laboratory coat, goggles, and gloves when handling reagents. 3. Dispose of unused solution with copious amounts of water. 4. Do not ingest reagent. If reagent is ingested, seek medical advice immediately. 5. Avoid contact with eyes. If contact occurs, flush with large quantities of water. 6. Follow safety precautions of the heating device used for epitope retrieval (TintoRetriever Pressure Cooker or similar). 7. For additional safety information refer to Safety Data Sheet for this product. 8. For complete recommendations for handling biological specimens, please refer to the CDC document, "Guidelines for Safe Work Practices in Human and AMDL" (see References in this document).
Mounting Protocols	For detailed instructions using biodegradable permanent mounting media such as XyGreen PermaMounter or organic solvent based resin such as PermaMounter.
Product Limitations	Due to inherent variability present in immunohistochemical procedures (including fixation time of tissues, dilution factor of antibody, retrieval method utilized, and incubation time), optimal performance should be established through the use of positive and negative controls.
Preparation and Storage	Store at 2 to 8 degree C in the dark.

IMAGES



IHC (Immunohistochemistry)
Abbreviated Immunohistochemical Protocol



IHC (Immunohistochemistry)
IHC of Glutamine Synthetase on an FFPE Hepatocellular Carcinoma Tissue



Dilution Info

ADDITIONAL INFORMATION

Related Product Information for anti-GLUL antibody

Glutamine synthetase (GS) is an enzyme that plays an essential role in the metabolism of nitrogen by catalyzing the condensation of glutamate and ammonia to form glutamine. GS is present predominantly in the brain, kidneys, and liver. GS in the brain participates in the metabolic regulation of glutamate, the detoxification of brain ammonia, the assimilation of ammonia, recyclization of neurotransmitters, and termination of neurotransmitter signals. In normal liver, GS expression is seen in pericentral hepatocytes, but not in mid-zonal or periportal hepatocytes.

GS positive tumor cells are believed to be derived from GS positive hepatocytes. GS immunoreactivity has been seen in a majority of hepatocellular carcinoma (HCC), including cases of early HCC (70%) and for low grade HCC (59%). In nonmalignant nodules, GS overexpression is only seen in high grade dysplastic nodules (HGDN, 13.6%). In these cases, GS overexpression was restricted to 11.5%-50% of hepatocytes, whereas in HCC the majority of cases (53%), including early HCC (60%), showed diffuse immunostaining (>50% tumor cells). A panel composed of antibodies against HSP70, GPC3, and GS has been proposed to be very useful in distinguishing between dysplastic and early malignant hepatocellular nodules arising in cirrhosis. Staining of hepatocellular lesions with anti-GS antibody have been useful in the differential identification of focal nodular hyperplasia (FNH), hepatic adenoma (HCA), and dysplastic nodules, and low grade hepatocellular carcinoma. In the case of FNH, GS stains in a characteristic "map-like" pattern, thus differentiating it from HCA, in which GS staining is usually absent, but may occasionally be present at the border of the lesion or around the veins inside the tumor.

NCBI AND UNIPROT INFORMATION

NCBI GI #	74271826
NCBI GeneID	2752
NCBI Accession #	NP_001028228.1
NCBI GenBank Nucleotide #	NM_001033056.3
NCBI Official Full Name	glutamine synthetase
NCBI Official Synonym Full Names	glutamate-ammonia ligase
NCBI Official Symbol	GLUL
NCBI Official Synonym Symbols	GS; GLNS; PIG43; PIG59
NCBI Protein Information	glutamine synthetase
UniProt Protein Name	Glutamine synthetase
UniProt Gene Name	GLUL
UniProt Synonym Gene Names	GLNS; GS
UniProt Entry Name	GLNA_HUMAN

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.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/monoclonal/glutamine-synthetase-antibody-clone-gs-6-immunohistochemistry-elisa/59290>