

DATASHEET

Glutamine Synthetase Mouse Monoclonal Antibody(C2715)

CAT. NO. AMA02327

KEY FEATURES

Target	Glutamine Synthetase	Source / Host	Mouse
Reactivity	Human, Mouse	Clonality	Monoclonal
Applications	WB, IHC, IF/ICC, FC	Conjugation	Unconjugated
Form / Buffer	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.	Storage	at-20°C

BACKGROUND

Glutamine synthetase that catalyzes the ATP-dependent conversion of glutamate and ammonia to glutamine . Its role depends on tissue localization: in the brain, it regulates the levels of toxic ammonia and converts neurotoxic glutamate to harmless glutamine, whereas in the liver, it is one of the enzymes responsible for the removal of ammonia . Plays a key role in ammonium detoxification during erythropoiesis: the glutamine synthetase activity is required to remove ammonium generated by porphobilinogen deaminase (HMBS) during heme biosynthesis to prevent ammonium accumulation and oxidative stress . Essential for proliferation of fetal skin fibroblasts .

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IHC	1:100 - 1:500
IF/ICC	1:100 - 1:500
FC	1:100 - 1:200

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Mouse monoclonal to Glutamine Synthetase
Specificity	Recognizes endogenous levels of Glutamine Synthetase protein
Antibody Type	Primary antibody
Immunogen	Recombinant fusion protein of human Glutamine Synthetase expressed in E. Coli
Purification	This antibody is purified through a protein G column.
Molecular Weight	Predicted: 42 kD; Observed: 42 kD
Form/Buffer	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	GLNS; Glutamine synthetase; GS; Glutamate decarboxylase; Glutamate--ammonia ligase
Gene Symbol	GLUL
Entrez Gene	2752(Human); 24957(Rat)
SwissProt	P15104(Human); P15105(Mouse)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

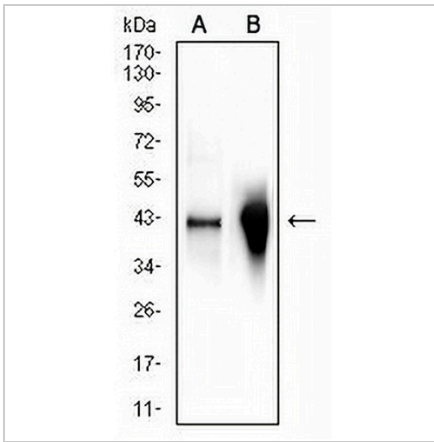
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

DATASHEET

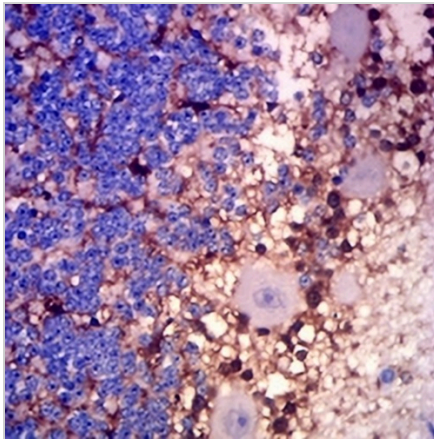
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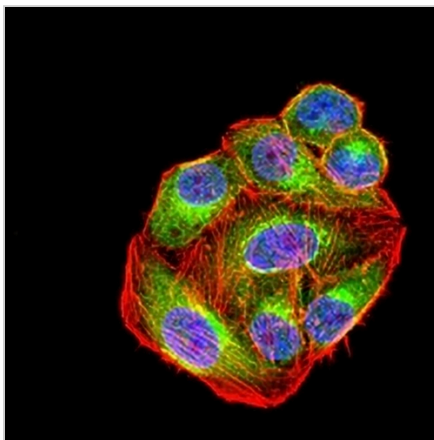
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Western blot analysis of Glutamine Synthetase expression in Jurkat (A), mouse liver (B) whole cell lysates. (Predicted band size: 42 kD; Observed band size: 42 kD)



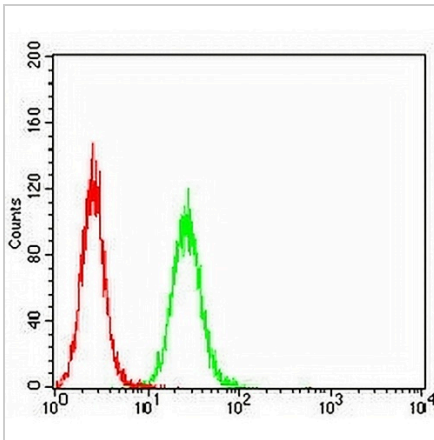
Immunohistochemical analysis of Glutamine Synthetase staining in human cerebellum formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of Glutamine Synthetase staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with an AREX® Fluor 488 - conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AREX® Fluor 594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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DATA (CONTINUED)

Flow cytometric analysis of HeLa cells using Anti-Glutamine Synthetase Antibody (green) and negative control (red).

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.