

**DATASHEET**

**Glutamine Synthetase Rabbit Polyclonal Antibody**

CAT. NO. APA07028

**KEY FEATURES**

Target	Glutamine Synthetase	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat, Bovine, Dog, Monkey, Pig, Zebrafish	Clonality	Polyclonal
Applications	WB, IHC	Conjugation	Unconjugated
Form / Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, 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	1:50 - 1:100

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

**PRODUCT OVERVIEW**

Description	Rabbit polyclonal antibody to Glutamine Synthetase
Specificity	Recognizes endogenous levels of Glutamine Synthetase protein.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Glutamine Synthetase. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 42 kD; Observed: 42 kD
Form/Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, 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); 14645(Mouse); 24957(Rat)
SwissProt	P15104(Human); P15105(Mouse); P09606(Rat)

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

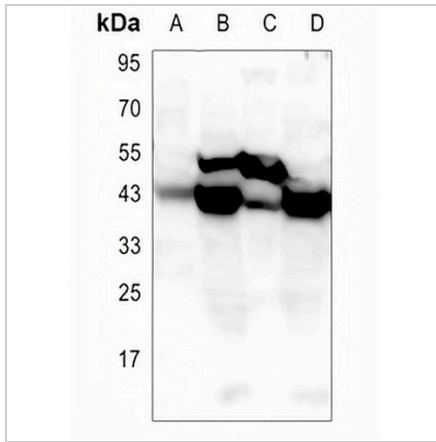
\*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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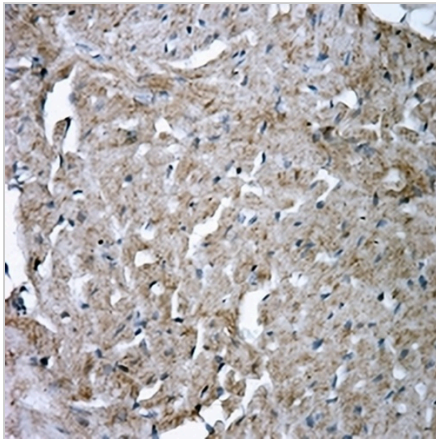
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**DATA**



Western blot analysis of Glutamine Synthetase expression in K562 (A), rat kidney (B), rat muscle (C), rat liver (D) whole cell lysates. (Predicted band size: 42 kD; Observed band size: 42 kD)



Immunohistochemical analysis of Glutamine Synthetase staining in rat Heart 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.

**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.