

Datasheet for 200-101-238S**Glutamine Synthetase Antibody****Overview**

Description:	Anti-Glutamine Synthetase (GOAT) Antibody - 200-101-238S
Item No.:	200-101-238S
Size:	25 µL
Applications:	WB
Reactivity:	Brevibacterium
Host Species:	Goat

Product Details

Background:	Glutamine Synthetase antibody detects microbial GS. 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: $\text{Glutamate} + \text{ATP} + \text{NH}_3 \rightarrow \text{Glutamine} + \text{ADP} + \text{phosphate}$. Glutamine Synthetase uses ammonia produced by nitrate reduction, amino acid degradation, and photorespiration.[4] The amide group of glutamate is a nitrogen source for the synthesis of glutamine pathway metabolites. Anti-Glutamine Synthetase antibody is ideal for investigators involved in glucose energy metabolism research.
Synonyms:	goat anti-Glutamine Synthetase Antibody, Glutamine synthetase, GS
Host Species:	Goat
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	glnA
Reactivity:	Brevibacterium
Immunogen Type:	Native Protein
Immunogen:	Glutamine Synthetase [native from brevibacterium species]

Purity/Specificity: Anti-Glutamine Synthetase antibody is an IgG fraction antibody purified from monospecific antiserum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Goat Serum as well as purified and partially purified Glutamine Synthetase [Microbial]. Cross reactivity against Glutamine Synthetase from other sources is unknown.

Relevant Links:

- [UniProtKB - Q79VE3](#)
- [NCBI - CAG33988.1](#)
- [GeneID - 3345165](#)

Application Details

Tested Applications: WB

Application Note: Anti-Glutamine Synthetase antibody has been tested by western blot and is suitable to be assayed against 1.0 µg of Glutamine Synthetase [Microbial] in a standard ELISA using Peroxidase conjugated Affinity Purified anti-Goat IgG [H&L] (Rabbit) and (ABTS (2,2'-azino-bis-[3-ethylbenthiazoline-6-sulfonic acid]) as a substrate for 30 minutes at room temperature. A working dilution of 1:4,000 to 1:16,000 of the reconstitution concentration is suggested for this product. It is suitable for Immunohistochemistry also. Specific conditions for reactivity should be optimized by the end user.

Assay Dilutions: All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

ELISA: 1:5,000 - 1:20,000

IP: 1:100

WB: 1:500 - 1:5,000

Formulation

Physical State: Liquid (sterile filtered)

Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Preservative: 0.01% (w/v) Sodium Azide

Stabilizer: None

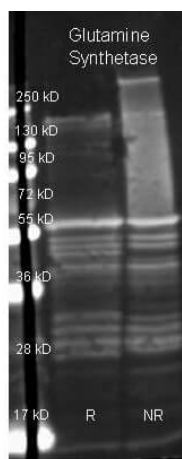
Shipping & Handling

Shipping Condition: Dry Ice

Storage Condition: Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.

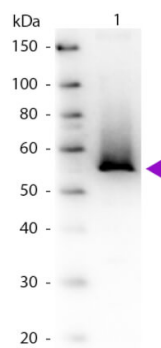
Expiration: Expiration date is one (1) year from date of receipt.

Images



Western Blot

Western Blot of Goat anti-Glutamine Synthetase antibody. Lane 1: Glutamine Synthetase Reduced. Lane 2: Glutamine Synthetase Non-Reduced. Load: ~1µg of protein per lane. Primary antibody: Glutamine Synthetase antibody at 1:3000 for overnight at 4°C. Secondary antibody: Dylight 649 conjugated Donkey anti goat (605-743-125 lot 20834 1:10K in TBS/MB-070) 1 hr RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 53.3 kDa, 56 kDa for Glutamine Synthetase. Other band(s): Glutamine Synthetase splice variants and isoforms.



Western Blot

Western blot of Goat Anti-Glutamine Synthetase primary antibody. Lane 1: Glutamine Synthetase. Lane 2: None. Load: 50 ng per lane. Primary antibody: Glutamine Synthetase antibody at 1:1,000 overnight at 4°C. Secondary antibody: Peroxidase goat secondary antibody at 1:40,000 for 30 min at RT. Blocking: MB-070 for 30 min at RT. Observed/Predicted size: 54 kDa, 54 kDa for Glutamine Synthetase (Brevibacterium). Other band(s): None.

Disclaimer

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