

Datasheet for 200-101-238

Glutamine Synthetase Antibody

Overview

Description:	Anti-Glutamine Synthetase (GOAT) Antibody (BULK ORDER) - 200-101-238
Item No.:	200-101-238
Size:	50 mg
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:

- [NCBI - CAG33988.1](#)
- [UniProtKB - Q79VE3](#)
- [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: Lyophilized

Concentration: 10.0 mg/mL by UV absorbance at 280 nm

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

Preservative: 0.01% (w/v) Sodium Azide

Stabilizer: None

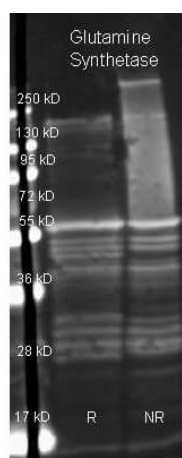
Reconstitution Volume: 5.0 mL

Reconstitution Buffer: Restore with deionized water (or equivalent)

Shipping & Handling

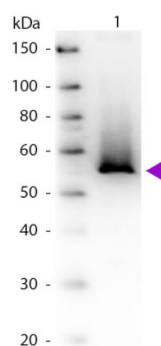
Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
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: ~1ug 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

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.