

Datasheet for 200-106-238-0100**Glutamine Synthetase Antibody Biotin Conjugated****Overview**

Description:	Anti-Glutamine Synthetase (Microbial) (GOAT) Antibody Biotin Conjugated - 200-106-238-0100
Item No.:	200-106-238-0100
Size:	100 µg
Reactivity:	Brevibacterium
Host Species:	Goat

Product Details

Background:	Glutamine Synthetase is a key enzyme in the metabolism of nitrogen. Glutamine synthetase catalyzes an ATP-dependent condensation reaction between ammonia and glutamate to yield glutamine. Glutamine is a key builder of proteins as well as a vehicle to deliver nitrogen atoms to enzymes that build molecules dependent on nitrogen. Glutamine Synthetase from a microbial source is composed of twelve subunits that each house an active site. During the reaction of glutamine synthetase, the active sites bind ammonia and glutamate, as well as an ATP molecule to power the reaction. Negative feedback regulation is provided by the active sites ability to weakly bind other molecules and once their concentrations rise too high, the enzyme shuts off. Glutamine Synthetase has applications in neuroscience due to location in astrocytes within the brain and fluctuations in glutamine synthetase can detrimentally effect the astrocytes. Anti-Glutamine Synthetase (Microbial) Antibody is ideal for investigators in Molecular Biology, Neuroscience, and Enzymology.
Synonyms:	goat anti-Glutamine Synthetase Antibody biotin Conjugation, biotin Conjugated goat anti-Glutamine Synthetase Antibody, Glutamine synthetase
Host Species:	Goat
Conjugate:	Biotin
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	glnA
Reactivity:	Brevibacterium

Immunogen Type:	Native Protein
Immunogen:	Glutamine Synthetase [Microbial]
Purity/Specificity:	Anti-Glutamine Synthetase (microbial) 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-Biotin, 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

Application Note:	Anti-Glutamine Synthetase (microbial) antibody has been assayed against 1.0 µg of Glutamine Synthetase in a standard capture ELISA using Peroxidase Conjugated Streptavidin #S000-03 and ABTS (2,2'-azino-bis-[3-ethylbenzothiazoline-6-sulfonic acid]) code # ABTS-100 as a substrate for 30 minutes at room temperature. A working dilution of 1:4,000 to 1:20,000 of the reconstitution concentration is suggested for this product.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:2,000 - 1:10,000
IP:	1:100
WB:	1:500 - 1:2,500

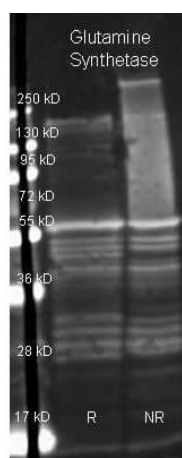
Formulation

Physical State:	Lyophilized
Concentration:	1.0 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:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free
Reconstitution Volume:	100 µL
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

Rockland Goat anti Glutamine Synthetase antibody (200-101-238 lot 8182) was used to detect Glutamine Synthetase under reducing (R) and non-reducing (NR) conditions. Reduced samples of purified target proteins contained 4% BME and were boiled for 5 minutes. Samples of ~1ug of protein per lane were run by SDS-PAGE. Protein was transferred to nitrocellulose and probed with 1:3000 dilution of primary antibody (ON 4 C in MB-070). Detection shown was using Dylight 649 conjugated Donkey anti goat (605-743-125 lot 20834 1:10K in TBS/MB-070) 1 hr RT. Images were collected using the BioRad VersaDoc System.

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.