

Datasheet for 200-101-092S**Uricase Antibody****Overview**

Description:	Anti-Uricase (Bacillus species) (GOAT) Antibody - 200-101-092S
Item No.:	200-101-092S
Size:	25 µL
Applications:	WB
Reactivity:	Bacillus sp.
Host Species:	Goat

Product Details

Background:	Uricase, or urate oxidase, catalyzes the oxidation of uric acid to 5-hydroxyisourate, which is further processed to form (S)-allantoin. Urate oxidase is found in nearly all organisms, from bacteria to mammals, and plays different metabolic roles, depending on its host organism. Humans are the only animal that are unable to break down uric acid to allantoin. This is because humans do not have the necessary enzyme uricase. Humans do have a gene for urate oxidase, but it is nonfunctional. Thus uric acid is the end product of animal products in humans. This leads to an increased possibility of an accumulation of uric acid in the body when animal products are eaten. Excessive concentration of uric acid in the blood stream leads to gout. It has been proposed that the loss of urate oxidase gene expression has been advantageous to primates, since uric acid is a powerful antioxidant and scavenger of singlet oxygen and radicals. Its presence provides the body with protection from oxidative damage, thus prolonging life and decreasing age-specific cancer rates.
Synonyms:	goat anti-uricase antibody, Urate oxidase antibody, Factor-independent urate hydroxylase
Host Species:	Goat
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	ABC3735
Reactivity:	Bacillus sp.

Immunogen Type:	Native Protein
Immunogen:	Uricase [Bacillus species]
Purity/Specificity:	Anti-Uricase 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 Uricase [Bacillus species]. Cross reactivity against Uricase from other sources is unknown.
Relevant Links:	• UniProtKB - Q5WBJ3 • NCBI - YP_177228.1 • GeneID - 3202700

Application Details

Tested Applications:	WB
Application Note:	Uricase Antibody has been tested by western blot and is assayed against 1.0 ug of Uricase [Bacillus species] in a standard ELISA using Peroxidase conjugated Affinity Purified anti-Goat IgG [H&L] (Goat) code #611-1302 and (ABTS (2,2'-azino-bis-[3-ethylbenthiazoline-6-sulfonic acid])) code # ABTS-100 as a substrate for 30 minutes at room temperature. A working dilution of 1:500 to 1:3,000 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:	1:1,000 - 1:2,500
IP:	1:100
WB:	1:500 - 1:1,000

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1 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

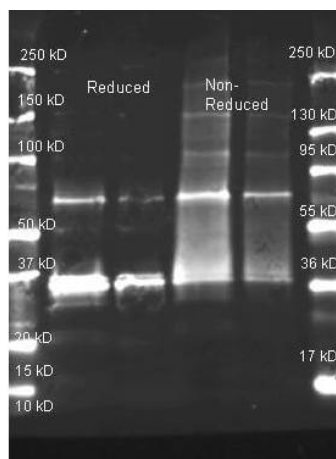
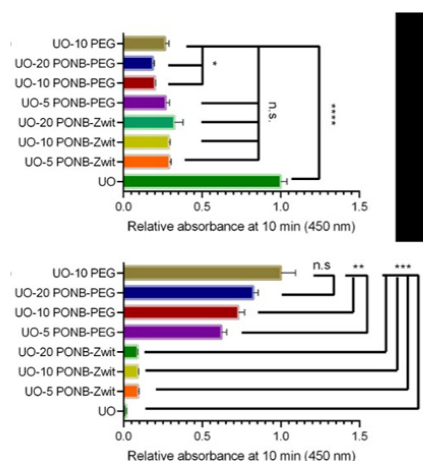
Shipping & Handling

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



ELISA

ELISA to study immune recognition of UO conjugates. A) Immune recognition by anti-UO antibodies B) Immune recognition by anti-PEG antibodies. The relative absorbance at 450 nm after a 10-minute reaction of HRP from a two-step ELISA for (a) uricase detection and (b) PEG detection. The signal intensity was normalized to (a) UO and (b) UO-10 PEG. Data represented are mean $\pm$ standard deviation (N=3). Significance was determined using Welch's t-test for each sample in 16165195, 2024, 2, comparison with (a) UO and (b) UO-PEG. Figure 7. PMID: 37688508

Western Blot

Rockland Goat anti Uricase antibody was used to detect purified Uricase under reducing and non-reducing conditions. Samples of $\sim$ 1 and 0.25 ug of protein per lane were run by SDS-PAGE and reduced samples of purified Uricase contained 4% BME and were boiled for 5 minutes. Protein was transferred to nitrocellulose and probed with Rockland Goat anti Uricase (200-101-092 lot 6732 1:5K in MB-0070, ON 4 C). Primary antibody was detected with Rockland Dylight 649 conjugated Donkey anti Goat (605-743-125 1:10K 1.5 hr RT in MB-070 and imaged on the BioRad VersaDoc imaging system.

References

- Davis E et al. Poly(Oxanorbornene)-Protein Conjugates Prepared by Grafting-to ROMP as Alternatives for PEG. *Macromol Biosci.* (2024)

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.