

Datasheet for 200-1154-0100**Carbonic Anhydrase I Antibody****Overview**

Description:	Anti-Carbonic Anhydrase I (GOAT) Antibody - 200-1154-0100
Item No.:	200-1154-0100
Size:	100 µg
Applications:	IHC, WB
Reactivity:	Human
Host Species:	Goat

Product Details

Background:	Carbonic Anhydrase 1 reverses hydration of carbon dioxide and can hydrate cyanamide to urea. Carbonic Anhydrase I is activated by histamine, imidazole, L-adrenaline, L- and D-histidine, and L- and D-phenylalanine. It is inhibited by coumarins, sulfonamide derivatives such as acetazolamide, benzenesulfonamide and derivatives (4-carboxyethylbenzene-sulfonamide, 4-carboxyethylbenzene-sulfonamide ethyl ester, 4-(acetyl-2-aminoethyl)benzene-sulfonamide, 4-aminoethylbenzene-sulfonamide), and 'prong inhibitors' BR15, BR17, BR22 and BR30. It is activated by a short exposition to Foscarnet (phosphonoformate trisodium salt), but inhibited by a long one. Esterase activity is weakly reduced by cyanamide.
Synonyms:	goat anti-Carbonic Anhydrase I Antibody, Car1 antibody, Carbonate dehydratase I antibody, Carbonic anhydrase 1 antibody, Carbonic anhydrase B antibody, Carbonic dehydratase antibody, ECK0125 antibody, yadF antibody
Host Species:	Goat
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	CA1
Reactivity:	Human
Immunogen Type:	Native Protein
Immunogen:	Carbonic Anhydrase I [Human Erythrocytes]

Purity/Specificity: Anti-CARBONIC ANHYDRASE I 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 Carbonic Anhydrase I [Human Erythrocytes]. Cross reactivity against Carbonic Anhydrase I from other tissues and species may occur but have not been specifically determined.

Relevant Links:

- [UniProtKB - P00915](#)
- [NCBI - NP_001122301.1](#)
- [GeneID - 759](#)

Application Details

Tested Applications:	IHC, WB
Application Note:	Anti-Carbonic Anhydrase 1 has been tested in western blot and immunohistochemistry and is suitable in ELISA. 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:	1:2,000 - 1:20,000
IHC:	10µg/mL
WB:	1:500 - 1:2,000

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:	None
Reconstitution Volume:	100 µL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

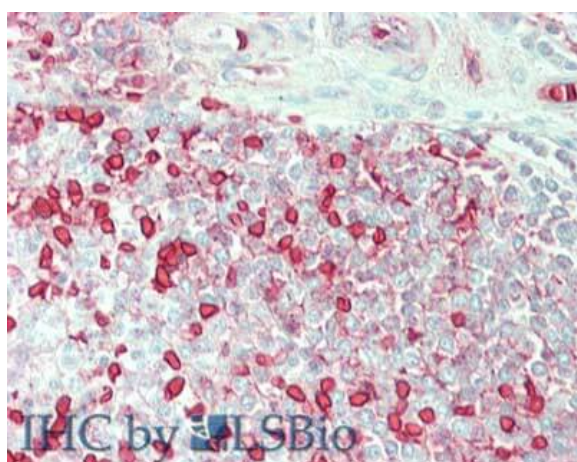
Shipping & Handling

Shipping Condition:	Ambient
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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.

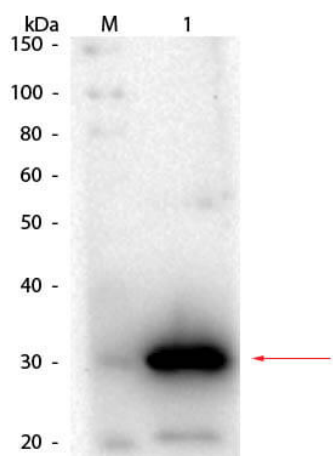
Expiration: Expiration date is one (1) year from date of receipt.

Images



Immunohistochemistry

Immunohistochemistry of Goat anti-Carbonic Anhydrase I antibody. Tissue: human spleen. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: anti-Carbonic Anhydrase I antibody at 5 µg/mL for 1 h at RT. Secondary antibody: Peroxidase goat secondary antibody at 1:10,000 for 45 min at RT. Staining: Carbonic Anhydrase 1 as precipitated red signal with hematoxylin purple nuclear counterstain.



Western Blot

Western Blot of Goat anti-Carbonic Anhydrase I Antibody. Lane 1: Carbonic Anhydrase I. Load: 50 ng per lane. Primary antibody: Carbonic Anhydrase I antibody at 1:1,000 overnight at 4°C. Secondary antibody: HRP goat secondary antibody (p/n 605-4302) at 1:40,000 for 30 min at RT. Block: (p/n MB-070) for 30 min at RT. Predicted/Observed size: 29 kDa, 29 kDa for Carbonic Anhydrase I.

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.