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Datasheet for 200-1154S

Carbonic Anhydrase I Antibody

Overview

Description:	Anti-Carbonic Anhydrase I (GOAT) Antibody - 200-1154S
Item No.:	200-1154S
Size:	25 µL
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

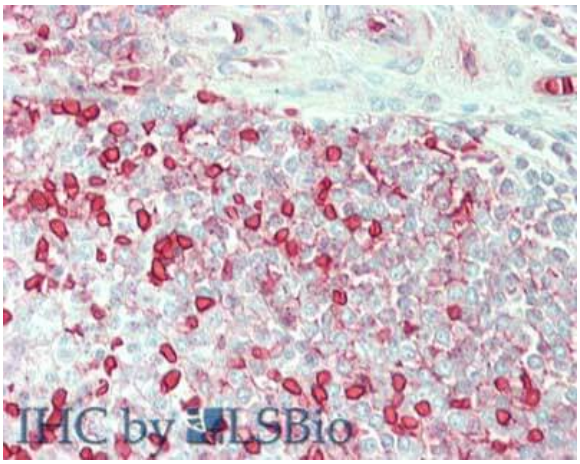
Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/ml by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

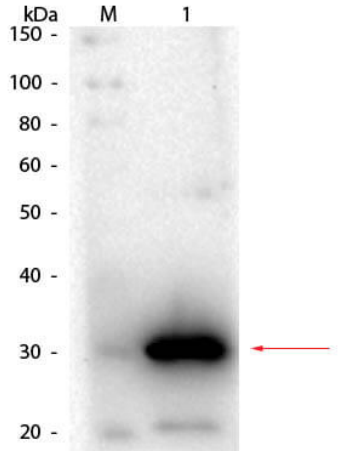
Shipping Condition:	Dry Ice

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



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

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