

**Datasheet for 200-4357S****Carbonic Anhydrase II Antibody Peroxidase Conjugated****Overview**

|                      |                                                                                |
|----------------------|--------------------------------------------------------------------------------|
| <b>Description:</b>  | Anti-Carbonic Anhydrase II (RABBIT) Antibody Peroxidase Conjugated - 200-4357S |
| <b>Item No.:</b>     | 200-4357S                                                                      |
| <b>Size:</b>         | 25 µL                                                                          |
| <b>Applications:</b> | Dot Blot, ELISA                                                                |
| <b>Reactivity:</b>   | Bovine                                                                         |
| <b>Host Species:</b> | Rabbit                                                                         |

**Product Details**

|                      |                                                                                                                                                                                                                                                                                                                                                       |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Background:</b>   | Carbonic anhydrase II (CA2), is one of fourteen forms of human $\alpha$ carbonic anhydrases. Carbonic anhydrase catalyzes reversible hydration of carbon dioxide. Defects in this enzyme are associated with osteopetrosis and renal tubular acidosis. Carbonic anhydrase II has been shown to interact with Band 3 and Sodium-hydrogen antiporter 1. |
| <b>Synonyms:</b>     | rabbit anti-Carbonic Anhydrase II Antibody Peroxidase Conjugation, HRP conjugated rabbit anti-Carbonic Anhydrase II Antibody, Carbonate dehydratase II antibody, Carbonic anhydrase 2 antibody, Carbonic anhydrase B antibody, Carbonic anhydrase C antibody, Carbonic anhydrase II antibody, Carbonic dehydratase antibody, CAC, CA-II               |
| <b>Host Species:</b> | Rabbit                                                                                                                                                                                                                                                                                                                                                |
| <b>Conjugate:</b>    | Peroxidase (HRP)                                                                                                                                                                                                                                                                                                                                      |
| <b>Clonality:</b>    | Polyclonal                                                                                                                                                                                                                                                                                                                                            |
| <b>Format:</b>       | IgG                                                                                                                                                                                                                                                                                                                                                   |

**Target Details**

|                        |                                             |
|------------------------|---------------------------------------------|
| <b>Gene Name:</b>      | CA2                                         |
| <b>Reactivity:</b>     | Bovine                                      |
| <b>Immunogen Type:</b> | Native Protein                              |
| <b>Immunogen:</b>      | Carbonic Anhydrase II [Bovine Erythrocytes] |

**Purity/Specificity:** Carbonic anhydrase II 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-Peroxidase, anti-Rabbit Serum as well as purified and partially purified Carbonic Anhydrase II [Bovine Erythrocytes]. Cross reactivity against Carbonic Anhydrase II from other tissues and species may occur but have not been specifically determined.

**Relevant Links:**

- [UniProtKB - P00921](#)
- [NCBI - NP\\_848667.1](#)
- [GenelD - 280740](#)

## Application Details

**Tested Applications:** Dot Blot, ELISA

**Application Note:** Anti-Carbonic anhydrase II Peroxidase Conjugated Antibody has been tested by ELISA and dot blot and is assayed against 1.0 ug of Carbonic Anhydrase II [Bovine Erythrocytes] in a standard capture ELISA using 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 1:1,000 to 1:4,000 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:** 1:5,000 - 1:20,000

**IHC:** 1:500 - 1:2,500

**WB:** 1:1,000 - 1:5,000

## 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) Gentamicin Sulfate. Do NOT add Sodium Azide!

**Stabilizer:** 10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free

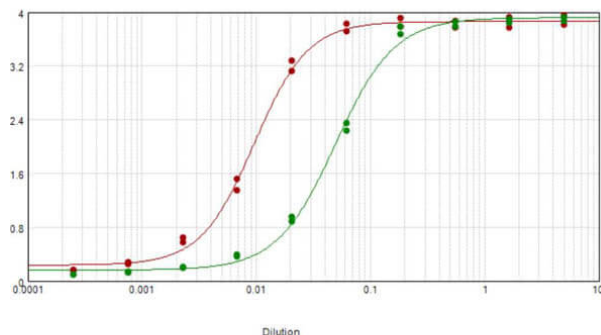
## Shipping & Handling

**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

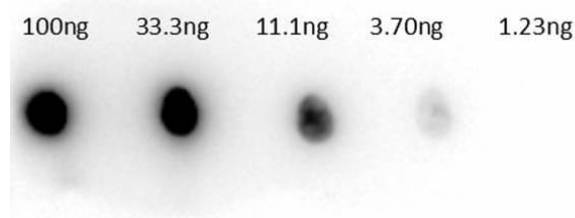


### ELISA

ELISA results of purified Rabbit Carbonic Anhydrase II Antibody tested against Carbonic Anhydrase II (erythrocytes). (Green line) The starting dilution of antibody was 5µg/ml and the X-axis represents the Log10 of a 3-fold dilution. This titration is a 4-parameter curve fit where the IC50 is defined as the titer of the antibody. Assay performed using TMB-1000 substrate.

### Dot Blot

Dot Blot of Rabbit Anti-Carbonic Anhydrase II Peroxidase Conjugated Antibody. Lane 1: 100ng. Lane 2: 33.3ng. Lane 3: 11.1ng. Lane 4: 3.7ng. Lane 5: 1.23ng. Secondary Antibody: 200-4357 Anti-Carbonic Anhydrase II HRP 1µg/mL. Blocking Buffer: MB-073 for 30 min at RT.



## Disclaimer

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