

## ARG82360 Human CA2 / Carbonic Anhydrase 2 ELISA Kit

Package: 96 wells

Store at: 4°C

### Component

| Cat. No.     | Component Name                        | Package              | Temp  |
|--------------|---------------------------------------|----------------------|---|
| ARG82360-001 | Antibody-coated microplate            | 8 X 12 strips        | 4°C. Unused strips should be sealed tightly in the air-tight pouch. |
| ARG82360-002 | Standard                              | 2 X 50 ng/vial       | 4°C   |
| ARG82360-003 | Standard/Sample diluent               | 30 ml (Ready to use) | 4°C   |
| ARG82360-004 | Antibody conjugate concentrate (100X) | 1 vial (100 µl)      | 4°C   |
| ARG82360-005 | Antibody diluent buffer               | 12 ml (Ready to use) | 4°C   |
| ARG82360-006 | HRP-Streptavidin concentrate (100X)   | 1 vial (100 µl)      | 4°C   |
| ARG82360-007 | HRP-Streptavidin diluent buffer       | 12 ml (Ready to use) | 4°C   |
| ARG82360-008 | 25X Wash buffer                       | 20 ml                | 4°C   |
| ARG82360-009 | TMB substrate                         | 10 ml (Ready to use) | 4°C (Protect from light)  |
| ARG82360-010 | STOP solution                         | 10 ml (Ready to use) | 4°C   |
| ARG82360-011 | Plate sealer                          | 4 strips             | Room temperature  |

### Summary

|                     |   |
|---------------------|---|
| Product Description | ARG82360 Human CA2 / Carbonic Anhydrase 2 ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human CA2 / Carbonic Anhydrase 2 in serum, plasma (EDTA, heparin, citrate), cell culture supernatants and urine. |
| Tested Reactivity   | Hu  |
| Tested Application  | ELISA   |
| Target Name         | CA2 / Carbonic Anhydrase 2  |
| Conjugation         | HRP   |
| Conjugation Note    | Substrate: TMB and read at 450 nm.  |
| Sensitivity         | 0.39 ng/ml  |
| Sample Type         | Serum, plasma (EDTA, heparin, citrate), cell culture supernatants and urine.  |
| Standard Range      | 0.78 - 50 ng/ml   |
| Sample Volume       | 100 µl  |
| Precision           | Intra-Assay CV: 4.3%  |

Inter-Assay CV: 5.3%

**Alternate Names** Carbonic anhydrase C; EC 4.2.1.1; Car2; Carbonate dehydratase II; CA-II; Carbonic anhydrase II; CAC; HEL-76; Carbonic anhydrase 2; CAII

## Application Instructions

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**Assay Time** ~ 5 hours

## Properties

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**Form** 96 well

**Storage instruction** Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.

**Note** For laboratory research only, not for drug, diagnostic or other use.

## Bioinformation

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**Gene Symbol** CA2

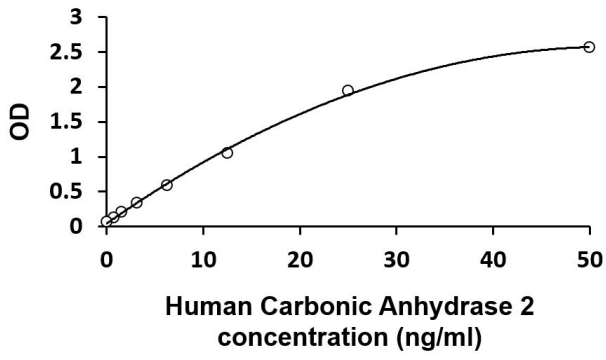
**Gene Full Name** carbonic anhydrase II

**Background** The protein encoded by this gene is one of several isozymes of carbonic anhydrase, which catalyzes reversible hydration of carbon dioxide. Defects in this enzyme are associated with osteopetrosis and renal tubular acidosis. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jun 2014]

**Function** Essential for bone resorption and osteoclast differentiation (By similarity). Reversible hydration of carbon dioxide. Can hydrate cyanamide to urea. Involved in the regulation of fluid secretion into the anterior chamber of the eye. Contributes to intracellular pH regulation in the duodenal upper villous epithelium during proton-coupled peptide absorption. Stimulates the chloride-bicarbonate exchange activity of SLC26A6. [UniProt]

**Highlight** Related products:  
[Carbonic Anhydrase antibodies](#); [Carbonic Anhydrase ELISA Kits](#);  
New ELISA data calculation tool:  
[Simplify the ELISA analysis by GainData](#)

**Cellular Localization** Cytoplasm. Cell membrane. Note=Colocalized with SLC26A6 at the surface of the cell membrane in order to form a bicarbonate transport metabolon. Displaced from the cytosolic surface of the cell membrane by PKC in phorbol myristate acetate (PMA)-induced cells. [UniProt]



ARG82360 Human CA2 / Carbonic Anhydrase 2 ELISA Kit standard curve image

ARG82360 Human CA2 / Carbonic Anhydrase 2 ELISA Kit results of a typical standard run with optical density reading at 450 nm.