



# CA IX Polyclonal Antibody

|                                    |                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Catalog No</b>                  | YP-Ab-02512                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Isotype</b>                     | IgG                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Reactivity</b>                  | Human;Rat;Mouse;                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Applications</b>                | WB;ELISA                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Gene Name</b>                   | CA9                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Immunogen</b>                   | The antiserum was produced against synthesized peptide derived from human CA IX. AA range:33-82                                                                                                                                                                                                                                                                                                                |
| <b>Specificity</b>                 | CA IX Polyclonal Antibody detects endogenous levels of CA IX protein.                                                                                                                                                                                                                                                                                                                                          |
| <b>Formulation</b>                 | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.                                                                                                                                                                                                                                                                                                                                        |
| <b>Source</b>                      | Polyclonal, Rabbit,IgG                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Purification</b>                | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.                                                                                                                                                                                                                                                                                          |
| <b>Dilution</b>                    | Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications.                                                                                                                                                                                                                                                                                                                            |
| <b>Concentration</b>               | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Purity</b>                      | ≥90%                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Storage Stability</b>           | -20°C/1 year                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Synonyms</b>                    | CA9;CAIX;carbonic anhydrase IX;CA 9;CA IX;Carbonic anhydrase 9;G250;MN; Carbonate dehydratase IX;CA-IX;Membrane antigen MN;P54/58N;Renal cell carcinoma-associated antigen G250;RCC-associated antigen G250;pMW1                                                                                                                                                                                               |
| <b>Observed Band</b>               | 58kD                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Calculated Molecular Weight</b> | 58kD                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Cell Pathway</b>                | Nucleus . Nucleus, nucleolus . Cell membrane ; Single-pass type I membrane protein . Cell projection, microvillus membrane ; Single-pass type I membrane protein . Found on the surface microvilli and in the nucleus, particularly in nucleolus.                                                                                                                                                              |
| <b>Tissue Specificity</b>          | Expressed primarily in carcinoma cells lines. Expression is restricted to very few normal tissues and the most abundant expression is found in the epithelial cells of gastric mucosa.                                                                                                                                                                                                                         |
| <b>Function</b>                    | catalytic activity:H(2)CO(3) = CO(2) + H(2)O.,cofactor:Zinc.,function:Reversible hydration of carbon dioxide. Participates in pH regulation. May be involved in the control of cell proliferation and transformation. Appears to be a novel specific biomarker for a cervical neoplasia.,induction:By hypoxia.,PTM:Asn-346 bears high-mannose type glycan structures.,similarity:Belongs to the alpha-carbonic |



anhydrase family.,subcellular location:Found on the surface microvilli and in the nucleus, particularly in nucleolus.,subunit:Forms oligomers linked by disulfide bonds.,tissue specificity:Expressed primarily in carcinoma cells lines. Expression is restricted to very few normal tissues and the most abundant expression is found in the epithelial cells of gastric mucosa.,

**Background**

Carbonic anhydrases (CAs) are a large family of zinc metalloenzymes that catalyze the reversible hydration of carbon dioxide. They participate in a variety of biological processes, including respiration, calcification, acid-base balance, bone resorption, and the formation of aqueous humor, cerebrospinal fluid, saliva, and gastric acid. They show extensive diversity in tissue distribution and in their subcellular localization. CA IX is a transmembrane protein and is one of only two tumor-associated carbonic anhydrase isoenzymes known. It is expressed in all clear-cell renal cell carcinoma, but is not detected in normal kidney or most other normal tissues. It may be involved in cell proliferation and transformation. This gene was mapped to 17q21.2 by fluorescence in situ hybridization, however, radiation hybrid mapping localized it to 9p13-p12. [provided by RefSeq, Jun 2014],

**matters needing attention**

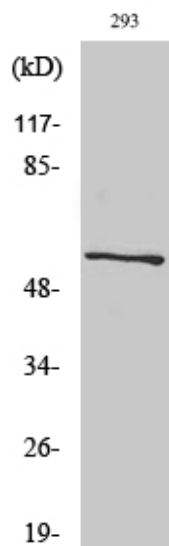
Avoid repeated freezing and thawing!

**Usage suggestions**

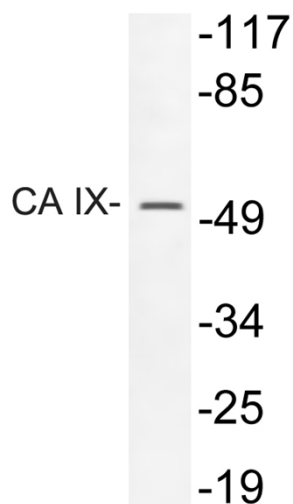
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



## Products Images



Western Blot analysis of various cells using CA IX Polyclonal Antibody cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003, Invent biotech, MN, USA).



Western blot analysis of lysate from 293 cells treated with insulin, using CA IX antibody.