

**CA9 Antibody (Center)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP5000e**

**Specification**

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**CA9 Antibody (Center) - Product Information**

Application	IF, WB, FC,E
Primary Accession	<a href="#">Q16790</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	49698
Antigen Region	113-143

**CA9 Antibody (Center) - Additional Information**

**Gene ID** 768

**Other Names**

Carbonic anhydrase 9, Carbonate dehydratase IX, Carbonic anhydrase IX, CA-IX, CAIX, Membrane antigen MN, P54/58N, Renal cell carcinoma-associated antigen G250, RCC-associated antigen G250, pMW1, CA9, G250, MN

**Target/Specificity**

This CA9 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 113-143 amino acids from the Central region of human CA9.

**Dilution**

IF~~1:10~50  
WB~~1:1000  
FC~~1:10~50

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

CA9 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

**CA9 Antibody (Center) - Protein Information**

**Name** CA9

### Synonyms G250, MN

**Function** Catalyzes the interconversion between carbon dioxide and water and the dissociated ions of carbonic acid (i.e. bicarbonate and hydrogen ions).

### Cellular Location

Nucleus. Nucleus, nucleolus. Cell membrane; Single-pass type I membrane protein. Cell projection, microvillus membrane; Single-pass type I membrane protein. Note=Found on the surface microvilli and in the nucleus, particularly in nucleolus

### Tissue Location

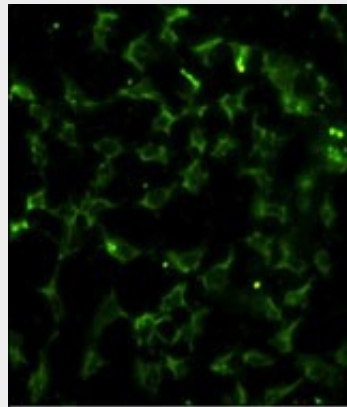
Expressed primarily in carcinoma cells lines. Expression is restricted to very few normal tissues and the most abundant expression is found in the epithelial cells of gastric mucosa

## CA9 Antibody (Center) - Protocols

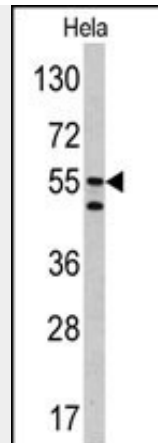
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

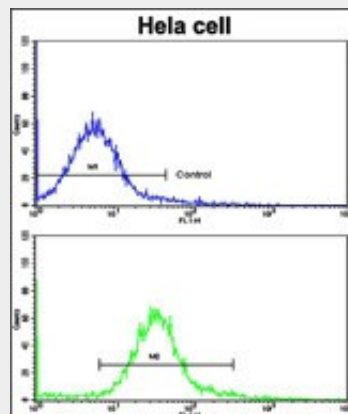
## CA9 Antibody (Center) - Images



Immunofluorescence analysis of CA9 Antibody (Center) with hela cells . 0.025 mg/ml primary antibody was followed by FITC-conjugated goat anti-rabbit IgG (whole molecule). FITC emits green fluorescence.



Western blot analysis of CA9 antibody (Center) (Cat.# AP5000e) in HeLa cell line lysates (35ug/lane). CA9 (arrow) was detected using the purified Pab.



Flow cytometric analysis of heLa cells using CA9 Antibody (Center)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

### CA9 Antibody (Center) - 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 the only tumor-associated carbonic anhydrase isoenzyme 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.

### CA9 Antibody (Center) - References

- Grabmaier, K., et al., *Oncogene* 23(33):5624-5631 (2004).
- Kaluzova, M., et al., *Mol. Cell. Biol.* 24(13):5757-5766 (2004).
- Span, P.N., et al., *Br. J. Cancer* 89(2):271-276 (2003).
- Hedley, D., et al., *Clin. Cancer Res.* 9(15):5666-5674 (2003).
- Bui, M.H., et al., *Clin. Cancer Res.* 9(2):802-811 (2003).

### CA9 Antibody (Center) - Citations

- [Overexpression of FZD1 and CAIX are Associated with Invasion, Metastasis, and Poor-Prognosis of the Pancreatic Ductal Adenocarcinoma.](#)

