

CA1 Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12645a**Specification**

CA1 Antibody (N-term) - Product Information

Application	WB, IHC-P, FC,E
Primary Accession	P00915
Other Accession	NP_001122301.1 , NP_001122302.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	60-90

CA1 Antibody (N-term) - Additional Information**Gene ID** 759**Other Names**

Carbonic anhydrase 1, Carbonate dehydratase I, Carbonic anhydrase B, CAB, Carbonic anhydrase I, CA-I, CA1

Target/Specificity

This CA1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 60-90 amino acids from the N-terminal region of human CA1.

DilutionWB~~1:1000
IHC-P~~1:10~50
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

CA1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

CA1 Antibody (N-term) - Protein Information**Name** CA1

Function Catalyzes the reversible hydration of carbon dioxide (PubMed:[10550681](#), PubMed:[18618712](#), PubMed:[16807956](#), PubMed:[16686544](#), PubMed:[17127057](#), PubMed:[19186056](#), PubMed:[19206230](#), PubMed:[16506782](#), PubMed:[17314045](#), PubMed:[17407288](#)). Can hydrate cyanamide to urea (PubMed:[10550681](#)).

Cellular Location

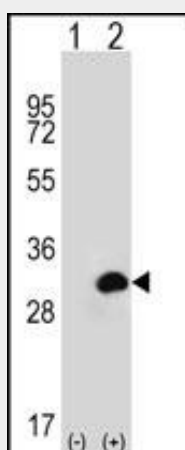
Cytoplasm {ECO:0000250|UniProtKB:B0BNN3}.

CA1 Antibody (N-term) - Protocols

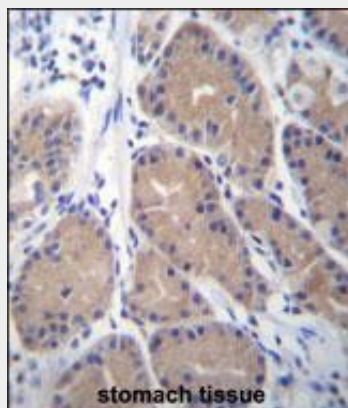
Provided below are standard protocols that you may find useful for product applications.

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

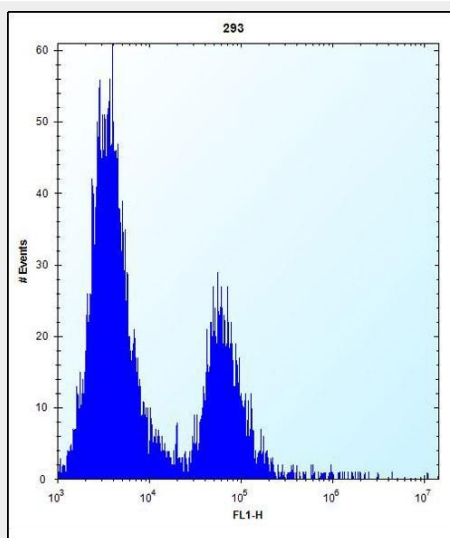
CA1 Antibody (N-term) - Images



Western blot analysis of CA1 (arrow) using rabbit polyclonal CA1 Antibody (N-term) (Cat. #AP12645a). HEK293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the CA1 gene.



CA1 Antibody (N-term) (Cat. #AP12645a) immunohistochemistry analysis in formalin fixed and paraffin embedded human stomach tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of CA1 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.



CA1 Antibody (N-term) (Cat. #AP12645a) flow cytometric analysis of HEK293 cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

CA1 Antibody (N-term) - 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. CA1 is closely linked to CA2 and CA3 genes on chromosome 8, and it encodes a cytosolic protein which is found at the highest level in erythrocytes. Variants of this gene have been described in some populations. Multiple alternatively spliced variants, encoding the same protein, have been identified. Transcript variants of CA1 utilizing alternative polyA sites have been described in literature.

CA1 Antibody (N-term) - References

Abhary, S., et al. Mol. Vis. 15, 1179-1184 (2009) :
Gambhir, K.K., et al. Biochem. Genet. 45 (5-6), 431-439 (2007) :
Temperini, C., et al. Bioorg. Med. Chem. Lett. 17(8):2210-2215(2007)
Temperini, C., et al. Bioorg. Med. Chem. Lett. 16(19):5152-5156(2006)
Dawson, S.J., et al. J. Infect. 24(3):317-320(1992)