

# Recombinant Full Length Human CA9 Protein

**Cat. No.** CA9-48HF    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| <b>Product Overview</b> | Recombinant full length, Human Carbonic Anhydrase IX (amino acids 1-459) with N terminal proprietary tag, 76.56kDa inclusive of tag.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Source</b>           | In Vitro Cell Free System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>ProteinLength</b>    | 459 amino acids                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Description</b>      | 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. This gene was mapped to 17q21.2 by fluorescence in situ hybridization, however, radiation hybrid mapping localized it to 9p13-p12. |
| <b>Form</b>             | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Molecular Mass</b>   | 76.560kDa inclusive of tags                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>AA Sequence</b>      | MAPLCPSWL PLLIPAPAG LTVQLLLSLL LLMPVHPQRL PRMQEDSPLG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

GGSSGEDDPL GEEDLPSEED SPREEDPPGE EDLPGEEDLP GEEDLPEVKP  
 KSEEEGSLKL EDLPTVEAPG DPQEPQNNAH RDKEGDDQSH WRYGGDPPWP  
 RVSPACAGRF QSPVDIRPQL AAFCPALRPL ELLGFQLPPL PELRLRNNGH  
 SVQTLPPGL EMALGPGREY RALQLHLHWG AAGRPGSEHT VEGHRFP AEI  
 HVVHLSTAF A RVDEALGRPG GLAVLAAFLE EGPEENSAYE QLLSRLEEIA  
 EEGSETQVPG LDISALLPSD FSR YFYEGS LTTPPCAQGV IWT VFNQTM  
 LSAKQLHTLS DTLWGPGDSR LQLNFRATQP LNGRVIEASF PAGVDSSPRA  
 AEPVQLNSCL AAGDILALVF GLLFAVTSVA FLVQMRRQHR RGTKGGVSYR  
 PAEVAETGA

**Purity** Proprietary Purification

**Storage** Shipped on dry ice. Upon delivery aliquot and store at -80 centigrade. Avoid freeze / thaw cycles.

**Storage Buffer** pH: 8.00. Constituents: 0.3% Glutathione, 0.79% Tris HCl.

## GENE INFORMATION

**Gene Name** CA9 carbonic anhydrase IX [ Homo sapiens ]

**Official Symbol** CA9

**Synonyms** CA9; carbonic anhydrase IX; carbonic anhydrase 9; CAIX; carbonic dehydratase; MN; RCC associated protein G250

**Gene ID** 768

**mRNA Refseq** NM\_001216

**Protein Refseq** NP\_001207

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| MIM | 603179 |
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| UniProt ID | Q16790 |
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