

Active Recombinant Human CA9 protein, His-tagged

Cat. No. CA9-7844H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human CA9 protein(Q16790)(59-414 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	59-414 aa
Form	PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	Carbonic Anhydrase IX (CA9) also known as membrane antigen MN and renal cell carcinoma (RCC) associated antigen G250, is a transmembrane enzyme expressed primarily in carcinoma cells. It is one of the best markers for hypoxia and for RCC. rhCA9 corresponds to the extracellular portion of human CA9. It catalyzes the reversible reaction of $\text{CO}_2 + \text{H}_2\text{O} = \text{HCO}_3^- + \text{H}^+$, which is fundamental to many processes such as respiration, renal tubular acidification and bone resorption. The recombinant human CA9 activity was measured by its ability to hydrolyze 4-Nitrophenyl acetate (4-NPA) to 4-Nitrophenol. The reaction was performed in 12.5 mM Tris, 75 mM NaCl, pH 7.5 (Assay Buffer), initiated by addition 50 μL of various concentrations of CA9 (diluted by Assay Buffer) to 50 μL of 2 mM Substrate 4-NPA (100 mM stock in Acetone, diluted by deionized water). Incubated at 37°C for 5min, then read at a wavelength of 400 nm.
Molecular Mass	42.5kDa

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Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	> 95%
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

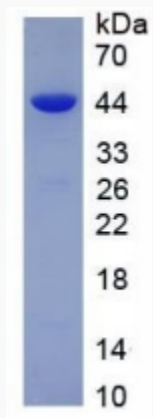
Gene Name	CA9 carbonic anhydrase IX [Homo sapiens]
Official Symbol	CA9
Synonyms	CA9; carbonic anhydrase IX; carbonic anhydrase 9; CAIX; carbonic dehydratase; MN; RCC associated protein G250; pMW1; CA-IX; P54/58N; membrane antigen MN; carbonate dehydratase IX; RCC-associated antigen G250; RCC-associated protein G250; renal cell carcinoma-associated antigen G250;
Gene ID	768
mRNA Refseq	NM_001216
Protein Refseq	NP_001207
MIM	603179
UniProt ID	Q16790

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