Active Recombinant Human CA8 protein, His-tagged

Cat. No. CA8-0231H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human CA8 protein(P35219)(1-290 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	1-290 aa
Form	PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	Carbonic Anhydrase (CA) catalyzes the reversible reaction of CO2 H2O = HCO3- H , which is fundamental to many processes such as respiration, renal tubular acidification and bone resorption. CA8, also called CA related protein (CARP), is a cytosolic protein without CA activity (i.e., the reversible hydration of CO2) due to point mutations in the zinc-binding site. CA8 is expressed exclusively in Purkinje cells of the cerebellum, where it binds inositol 1,4,5-triphosphate receptor type 1. CA8 overexpression in human colorectal cancer and non-small cell lung cancer indicates that it plays a role in the process of invasion in these types of malignancy. The activity of recombinant human CA8 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 CA8 (diluted by assay buffer) to 50 µ of 2 mM substrate 4-NPA (100 mM stock in Acetone, diluted by assay buffer). Incubated at 37°C for 5min, then read at a

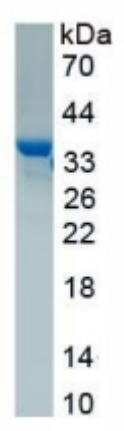
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	wavelength of 400 nm.
Molecular Mass	36.7kDa
Endotoxin	<1.0EU per 1μg (determined by the LAL method).
Purity	> 95%
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Store at -20°C for 12 months. Aliquot and store at -80°C for 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	CA8 carbonic anhydrase VIII [Homo sapiens]
Official Symbol	CA8
Synonyms	CA8; carbonic anhydrase VIII; CALS; carbonic anhydrase-related protein; CARP; CA-related protein; carbonate dehydratase; carbonic anhydrase-like sequence; CAMRQ3; CA-VIII; MGC99509; MGC120502;
Gene ID	767
mRNA Refseq	NM_004056
Protein Refseq	NP_004047
MIM	114815

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UniProt ID	P35219
SDS-PAGE	

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