

Active Recombinant Human CA8 Protein, His-tagged

Cat. No. CA8-397H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human CA8 protein fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography.
Species	Human
Source	E.coli
Description	CA8 was initially named CA-related protein because of sequence similarity to other known carbonic anhydrase genes. However, this protein lacks carbonic anhydrase activity (i.e., the reversible hydration of carbon dioxide). It continues to carry a carbonic anhydrase designation based on clear sequence identity to other members of the carbonic anhydrase gene family. Defects in CA8 are the cause of cerebellar ataxia mental retardation and dysequilibrium syndrome type 3 (CMARQ3).
Form	Liquid. 20mM Tris-HCl buffer (pH8.0) containing 20% glycerol, 1mM DTT
Bio-activity	Specific activity is >450 pmol/min/ug, and is defined as the amount of enzyme that hydrolyze 1.0 pmole of 4-nitrophenyl acetate to 4-nitrophenol per minute at pH 7.5 at 37C.
Molecular Mass	35.5 kDa (314aa), confirmed by MALDI-TOF(Molecular weight on SDS-PAGE will appear higher)
AA Sequence	MGSSHHHHHH SSGLVPRGSH MGSMDLSF IEDTVAFPEK EEDEEEEEEG VEWGYEEGVE WGLVFPDANG EYQSPINLNS REARYDPSLL DVRLSPNYVV

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CRDCEVTNDG HTIQVILKSK SVLSGGPLPQ GHEFELYEVR FHWGRENQRG
 SEHTVNFKAF PMELHLIHWN STLFGSIDEA VGKPHGIAII ALFVQIGKEH
 VGLKAVTEIL QDIQYKGKSK TIPCFNPNTL LPDPLL RDYW VYEGSLTIPP
 CSEGVTWILF RYPLTISQLQ IEEFRRLRTH VKGAELVEGC DGILGDNFRP
 TQPLSDRVIR AAFQ

Purity >90% by SDS - PAGE

Storage Can be stored at +4 centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20 centigrade or -70 centigrade. Avoid repeated freezing and thawing cycles.

Concentration 1 mg/ml (determined by Bradford assay)

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
Chromosome Location	8q11-q12
Function	carbonate dehydratase activity; metal ion binding; zinc ion binding;

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