

Recombinant Human Carbonic Anhydrase VIII, His-tagged

Cat. No. CA8-1388H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant humanCA8 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.
Molecular Weight	35.5 kDa(314aa), confirmed by MALDI-TOF (Molecular weight on SDS-PAGE will appear higher).
Purity	> 90% by SDS - PAGE
Concentration	1 mg/ml (determined by Bradford assay)
Sequences of	MGSSHHHHHSSGLVPRGSH MGSHMADLSF IEDTVAFPEK EEDEEEEEEG

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aminoacids

VEWGYEEGVE WGLVFPDANGEYQSPINLNS REARYDPSLL DVRLSPNYVV
 CRDCEVTNDG HTIQVILKSK SVLSGGPLPQ GHEFELYEVRFHWGRENQRG
 SEHTVNFKAF PMELHLIHWN STLFGSIDEA VGKPHGIAII ALFVQIGKEH
 VGLKAVTEILQDIQYK GKSK TIPCNPNTL LPDPLLRDYW VYEGSLTIPP
 CSEGVTWILF RYPLTISQLQ IEEFRRLRTHVKGAELVEGC DGILGDNFRP
 TQPLSDRVIR AAFQ

Storage

Can bestored at +4°C short term (1-2 weeks). For long term storage, aliquot andstore at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

GENE INFORMATION

Gene Name [CA8 carbonic anhydrase VIII \[Homosapiens \]](#)

Official Symbol [CA8](#)

Synonyms

CA8; carbonic anhydrase VIII; CALS; CARP;CAMRQ3; CA-VIII; MGC99509; MGC120502; carbonic anhydrase-related protein;CA-related protein; OTTHUMP00000229370; carbonate dehydratase; carbonicanhydrase-like sequence; EC 4.2.1.1

Gene ID [767](#)

mRNA Refseq [NM_004056](#)

Protein Refseq [NP_004047](#)

MIM [114815](#)

UniProt ID [P35219](#)

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Chromosome Location	8q11-q12
Pathway	Nitrogen metabolism
Function	carbonate dehydratase activity; metal ionbinding; metal ion binding

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