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## Carbonic anhydrase-8/CA8, human recombinant

**CATALOG NO:** P1047-10 10 μg P1047-50 50 μg

ALTERNATE NAMES: CA-VIII, CALS, CAMRQ3, CARP, CA8

**CONCENTRATION:** 1 mg/ml (determined by Bradford assay)

**SOURCE:** E.coli expressed recombinant CA8 protein, fused to His-tag at N-

terminus (1-290aa).

**PURITY:** > 90% by SDS-PAGE

MOL. WEIGHT: This protein is fused with 6x His tag at N terminus and the protein

has a calculated MW of 35.5 kDa (314aa).

FORM: Liquid

FORMULATION: In 20 mM Tris-HCl buffer (pH8.0) containing 1mM DTT, 20%

glycerol

STORAGE CONDITIONS: Store at +4°C for short term (1-2 weeks). For long term storage,

aliquot and store at -70°C. Avoid repeated freeze/thaw cycles.

SEQUENCE: MGSSHHHHHH SSGLVPRGSH MGSHMADLSF IEDTVAFPEK

EEDEEEEEG VEWGYEEGVE WGLVFPDANG EYQSPINLNS REARYDPSLL DVRLSPNYVV CRDCEVTNDG HTIQVILKSK SVLSGGPLPQ GHEFELYEVR FHWGRENQRG SEHTVNFKAF PMELHLIHWN STLFGSIDEA VGKPHGIAII ALFVQIGKEH VGLKAVTEIL QDIQYKGKSK TIPCFNPNTL LPDPLLRDYW VYEGSLTIPP CSEGVTWILF RYPLTISQLQ IEEFRRLRTH

VKGAELVEGC DGILGDNFRP TQPLSDRVIR AAFQ

**DESCRIPTION:**CA8 was initially named CA-related protein because of sequence similarity to other known carbonic anhydrase genes. However, this

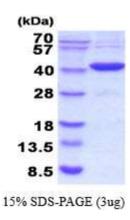
protein lacks carbonic anhydrase activity (i.e., the reversible hydration of carbon dioxide). It continues to carry a carbonic anhydrase designation based on clear sequence identity to other members of the carbonic anhydrase gene family. Defects in CA8 are the cause of cerebellar ataxia mental retardation and dysequilibrium syndrome type 3 (CMARQ3). Recombinant human CA8 protein fused to His-tag at N-terminus, was expressed in

E.coli and purified by using conventional chromatography.

BIOLOGICAL 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.



**Human recombinant CA8** 

## **RELATED PRODUCT:**

- Human CellExp™ CA2, human recombinant (Cat. No. 7479-10, -50)
- Human CellExp™ CA4, human recombinant (Cat. No. 7484-10)
- Human CellExp™ CA9, human recombinant (Cat. No. 7478-10)
- Human CellExp™ CA10, human recombinant (Cat. No. 7485-10)
- Human Recombinant Carbonic anhydrase 2 (Cat. No. 6390-100)
- Carbonic Anhydrase 3 /CA3, human recombinant (Cat. No. 7833-10, -50)
- MMP-1, human recombinant (Cat. No. 7781-10, 50, 1000)
- MMP-2, human recombinant (Cat. No. 7782-10, 50, 1000)
- MMP-3, human recombinant (Cat. No. 7783-10, 50, 1000)
- MMP-9, human recombinant (Cat. No. 7789-10, 50, 1000)

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