

Recombinant Human Carbonic Anhydrase I, His-tagged

Cat. No. CA1-1677H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant carbonic anhydrase fused to His-tag, was expressed in E. coli and purified by conventional chromatography techniques.
Species	Human
Source	E. coli
ProteinLength	1-220 aa
Description	Carbonic anhydrase (CA) is an enzyme that catalyses rapid conversion of carbon dioxide to bicarbonate and protons ($\text{CO}_2 + \text{H}_2\text{O} \rightarrow \text{HCO}_3^- + \text{H}^+$). Most carbonic anhydrases contain a zinc ion in their active site and the primary function of this enzyme is known to maintain acid-base balance in blood and other tissues, and to help transport carbon dioxide of tissues. Carbonic anhydrases have been found in all kingdoms of life.
Concentration	1 mg/ml
Form	Supplied as a liquid in 20mM Tris, pH 8.0, containing 1mM DTT.
Purity	> 95% by SDS - PAGE
Sequence	1-220 amino acids: MGSSHHHHHH SSGLVPRGSH MKDIDTLISN NALWSKMLVE EDPGFFEKLA QAQKPRFLWI GCSDSRVPAE RLTGLEPGEL FVHRNVANLV IHTDLNCLSV VQYAVDVLEV EHIICGHYG CGGVQAAVEN PELGLINNL

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LHIRDIWFKH SLLGEMPQE RRLDTLCELN VMEQVYNLGH STIMQSAWKR
GQKVTIHGWA YGIHDGLLRD LDV

Molecular Mass 27 kDa (240aa), confirmed by MALDI-TOF.

Applications SDS-PAGE

Storage Store at 4 deg C for short term storage (1/2 weeks). Aliquot and store at -20 deg C or -70 deg C for long term storage. Avoid repeated freeze/thaw cycles.

GENE INFORMATION

Gene Name CA1 carbonic anhydrase I [Homo sapiens]

Official Symbol CA1

Synonyms CA1; carbonic anhydrase I; Car1; EC 4.2.1.1; Carbonic anhydrase 1; CA-I; Carbonic anhydrase B; CAB; carbonic dehydratase

Gene ID 759

mRNA Refseq NM_001128829

Protein Refseq NP_001122301

MIM 114800

UniProt ID P00915

Chromosome Location 8q21.2

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Pathway	Nitrogen metabolism
Function	carbonate dehydratase activity; lyase activity; metal ion binding; zinc ion binding; carbonic dehydratase

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