

Recombinant human CA14, His-tagged

Cat. No. CA14-2485H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human CA14 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
Description	Carbonic anhydrases (CAs) are a large family of zinc metalloenzymes that catalyze the reversible hydration of carbon dioxide. They participate in a variety of biological processes, including respiration, calcification, acid-base balance, bone resorption, and the formation of aqueous humor, cerebrospinal fluid, saliva, and gastric acid. They show extensive diversity in tissue distribution and in their subcellular localization. CA14 is predicted to be a type I membrane protein and shares highest sequence similarity with the other transmembrane CA isoform, CA XII; however, they have different patterns of tissue-specific expression and thus may play different physiologic roles.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.15M NaCl, 10% glycerol, 1mM DTT
Molecular Mass	33.2kDa (298aa) confirmed by MALDI-TOF
AA Sequence	MGSSHHHHHH SSGLVPRGSH MGSADGGQHW TYEGPHGQDH WPASYPECGN NAQSPIDIQT DSVTFDPDLP ALQPHGYDQP GTEPLDLHNN GHTVQLSLPS TLYLGGLPRK YVAAQLHLHW GQKGSPGGSE HQINSEATFA ELHIVHYDSD

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SYDSLSEAAE RPQGLAVLGI LIEVGETKNI AYEHLSHLH EVRHKDQKTS
VPPFNLRELL PKQLGQYFRY NGSLLTPPCY QSVLWTVFYR RSQISMEQLE
KLQGTLFSTE EEPSKLLVQN YRALQPLNQR MVFASFIQAG SSYTTGEM

Purity >85 % by SDS - PAGE

Applications SDS-PAGE

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

Concentration 0.5 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name CA14 carbonic anhydrase XIV [Homo sapiens]

Official Symbol CA14

Synonyms CA14; carbonic anhydrase XIV; carbonic anhydrase 14; CA-XIV; carbonic dehydratase; carbonate dehydratase XIV; CAXiV;

Gene ID 23632

mRNA Refseq NM_012113

Protein Refseq NP_036245

MIM 604832

UniProt ID Q9ULX7

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Chromosome Location	1q21
Function	carbonate dehydratase activity; lyase activity; metal ion binding;