

Active Recombinant Human CA14 Protein, 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
ProteinLength	16-290 aa
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. CA XIV 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 20 mM Tris-HCl buffer (pH 8.0) containing 0.15M NaCl, 10% glycerol, 1mM DTT
Bio-activity	Specific activity is > 700 pmol/min/μg, and is defined as the amount of enzyme that hydrolyze 1.0pmole of 4-nitrophenyl acetate to 4-nitrophenol per minute at pH 7.5 at 37 centigrade.

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Molecular Mass	33.2 kDa (298aa) confirmed by MALDI-TOF
AASequence	MGSSHHHHHSSGLVPRGSHMGSA DGGQHWTYEGPHGQDHPASYPECGNNA QSPIDIQTDSVTFDPDLPALQPHGYDQPGTEPLDLHNNNGHTVQLSLPSTLYLGGLPR KYVAAQLHLHWGQKGSPGGSEHQINSEATFAELHIVHYDSDSYDSLSEAAERPQGL AVLGILIEVGETKNIAYEHILSHLHEVRHKDQKTSVPPFNLRELLPKQLGQYFRYNGSL TTPPCYQSVLWTVFYRRSQISMEQLEKLQGTLFSTEEEPSKLLVQNYRALQPLNQR MVFASFIQAGSSYTTGEM
Purity	> 85% by SDS-PAGE
Applications	SDS-PAGE, Enzyme Activity
Storage	Can be stored at +2 to +8 centigrade for 1 week. For long term storage, aliquot and store at -20 to -80 centigrade. 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 (human)]
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

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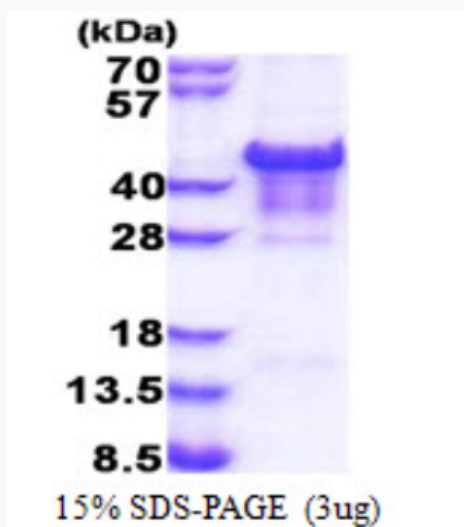
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Protein Refseq NP_036245

MIM 604832

UniProt ID Q9ULX7

SDS-PAGE



3 µg by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

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