Active Recombinant Human CA3 protein, His-tagged

Cat. No. CA3-0188H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human CA3 protein(P07451)(2-260 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	2-260 aa
Form	PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	Carbonic Anhydrase (CA) catalyzes the reversible reaction of CO2 H2O = HCO3- H , which is fundamental to many processes such as respiration, renal tubular acidification and bone resorption. CA3 is a cytosolic enzyme with a very low CA activity. It is expressed at low levels in human muscle during early development but increases rapidly during the last trimester to reach 50-60% of adult levels at birth. The activity of recombinant human CA3 was measured by its ability to hydrolyze 4-Nitrophenyl acetate (4-NPA) to 4-Nitrophenol. The reaction was performed in 12.5 mM Tris, 75 mM NaCl, pH 7.5 (assay buffer), initiated by addition 50 µL of various concentrations of CA3 (diluted by assay buffer) to 50 µ of 2 mM substrate 4-NPA (100 mM stock in Acetone, diluted by assay buffer). Incubated at 37°C for 5min, then read at a wavelength of 400 nm.
Molecular Mass	33.1kDa

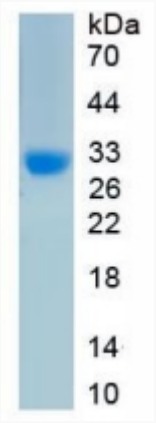
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Endotoxin	<1.0EU per 1μg (determined by the LAL method).
Purity	> 90%
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	CA3 carbonic anhydrase III, muscle specific [Homo sapiens]
Official Symbol	CA3
Synonyms	CA3; carbonic anhydrase III, muscle specific; carbonic anhydrase 3; CAIII; Car3; CA-III; carbonate dehydratase III; FLJ36434;
Gene ID	761
mRNA Refseq	NM_005181
Protein Refseq	NP_005172
MIM	114750
UniProt ID	P07451

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