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Datasheet for ABIN7194555 CA12 Protein (His tag)

Overview

Quantity:	50 µg
Target:	CA12
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This CA12 protein is labelled with His tag.

Product Details

Purpose:	Recombinant Human Carbonic Anhydrase XII/CA12 Protein (His Tag)(Active)
Sequence:	Met 1-Gln 291
Characteristics:	A DNA sequence encoding the extracellular domain of human CA12 (NP_001209.1) (Met 1-Gln 291) was expressed with a C-terminal polyhistidine tag.
Purity:	> 97 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.
Biological Activity Comment:	Measured by its esterase activity. The specific activity is >40 pmoles/min/µg, as measured with 1 mM 4-Nitrophenyl acetate and 2.5 µg enzyme at 400 nm in 100 µL of 12.5 mM Tris, 75 mM NaCl, pH 7.5.

Target Details

Target:	CA12
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Target Details

Alternative Name: Carbonic Anhydrase XII/CA12 ([CA12 Products](#))

Background: Background: Carbonic anhydrases (CAs) are a large family of zinc metalloenzymes first discovered in 1933 that catalyze the reversible hydration of carbon dioxide. CAs 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. CA12, also known as Car12 and carbonic anhydrase XII, is a type I membrane enzyme of an N-terminal extracellular catalytic domain, a membrane-spanning α -helix, and a small intracellular C-terminal domain. It is highly expressed in colon, kidney, prostate, intestine and activated lymphocytes and moderately expressed in pancreas, ovary, and testis. Overexpression of the CA12 is observed in certain human cancers and is used as a tumor marker. rmCA12 corresponds to the extracellular domain and has both carbonic anhydrase activity and esterase activity.

Synonym: CA12;CAXII;FLJ20151;HsT18816

Molecular Weight: 31.6 kDa

NCBI Accession: [NP_001209](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Please refer to the printed manual for detailed information.

Buffer: Lyophilized from sterile PBS, pH 7.4

Storage: 4 °C, -20 °C, -80 °C

Storage Comment: Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.