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Datasheet for ABIN7534105
CA12 Protein (His tag)

Overview

Quantity:	100 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:	Active Recombinant Human Carbonic anhydrase 12 Protein
Sequence:	APVNGSKWTY FGPDGENSWS KKYPSCGGLL QSPIDLHSDI LQYDASLTPL EFQGYNLSAN KQFLLTNNGH SVKLNLPSDM HIQGLQSRYS ATQLHLHWGN PNDPHGSEHT VSGQHFAAEL HIVHYNLDLY PDASTASNKS EGLAVLAVLI EMGSFNPSYD KIFSHLQHVK YKGQEA FVPG FNIEELLPER TAEYYRYRGS LTTPPCNPTV LWTVFRNPVQ ISQEQLLALE TALYCTHMDD PSPREMINNF RQVQKFDERL VYTSFSQ
Specificity:	Ala25-Gln291
Purity:	> 90 % by SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	< 0.1 EU/µg of the protein by LAL method.
Biological Activity Comment:	Measured by its esterase activity. The specific activity is >48 pmoles/min/µg, as measured with 1 mM 4-Nitrophenyl acetate and 1 µg enzyme at 400 nm in 100 µL of 12.5 mM Tris, 75 mM

Product Details

NaCl, pH 7.5.

Target Details

Target: CA12

Alternative Name: Carbonic anhydrase 12 ([CA12 Products](#))

Background: Description: Carbonic anhydrases (CAs) are a large family of zinc metalloenzymes 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 that is highly expressed in normal tissues, such as colon, kidney, prostate, intestine and activated lymphocytes and moderately expressed in pancreas, ovary, and testis. It has been found to be overexpressed in 10 % of clear cell renal carcinomas.

Name: CA12,CA-XII,CAXII,HsT18816,T18816

Gene ID: 771

UniProt: [O43570](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1 % BSA, 5 % HSA, 10 % FBS or 5 % Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Buffer: Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4.

Storage: -20 °C,-80 °C

Storage Comment: Store the lyophilized protein at -20°C to -80 °C for long term.
After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week.