Datasheet for ABIN7533772

CA2 Protein

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Overview

Quantity:	100 µg
Target:	CA2
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active

Product Details

Purpose:	Active Recombinant Human Carbonic anhydrase 2 Protein
Sequence:	SHHWGYGKHN GPEHWHKDFP IAKGERQSPV DIDTHTAKYD PSLKPLSVSY DQATSLRILN NGHAFNVEFD DSQDKAVLKG GPLDGTYRLI QFHFHWGSLD GQGSEHTVDK KKYAAELHLV HWNTKYGDFG KAVQQPDGLA VLGIFLKVGS AKPGLQKVVD VLDSIKTKGK SADFTNFDPR GLLPESLDYW TYPGSLTTPP LLECVTWIVL KEPISVSSEQ VLKFRKLNFN GEGEPEELMV DNWRPAQPLK NRQIKASFK
Specificity:	Ser2-Lys260
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 >840 pmoles/min/µg, as measured with 1 mM 4-Nitrophenyl acetate and 0.1 µg enzyme at 400 nm in 100 µL of 12.5 mM Tris, 75 mM NaCl, pH 7.5.

Target Details

Target:	CA2
Alternative Name:	Carbonic anhydrase 2 (CA2 Products)
Background:	Description: The carbonic anhydrases (or carbonate dehydratases) are classified as metalloenzyme for its zinc ion prosthetic group and form a family of enzymes that catalyze the rapid interconversion of carbon dioxide and water to bicarbonate and protons, a reversible reaction that takes part in maintaining acid-base balance in blood and other tissues. CA2 is a cytosolic enzyme with the highest activity among all known CAs. Mutations in the CA2 gene result in the CA II deficiency syndrome, an autosomal recessive disorder that produces osteopetrosis, renal tubular acidosis and cerebral calcification. Name: CA2, CA-II, CAC, CAII, Car2, HEL-76, HEL-S-282, carbonic anhydrase 2,CA-II,CAC,CAII,Car2,HEL-76,HEL-S-282
Gene ID:	760
UniProt:	P00918

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 votex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (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 20 mM Tris, 150 mM NaCl, pH 8.0.
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.