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## Datasheet for ABIN7519734 CA5A Protein (His tag)

### Overview

Quantity:	20 µg
Target:	CA5A
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CA5A protein is labelled with His tag.

### Product Details

Purpose:	Recombinant Human Carbonic anhydrase 5A/CA5A Protein
Sequence:	AWQTSNNTLH PLWTVPSVP GGTRQSPINI QWRDSVYDPQ LKPLRVSYEA ASCLYIWNTG YLFQVEFDDA TEASGISGGP LENHYRLKQF HFHWGAVNEG GSEHTVDGHA YPAELHLVHW NSVKYQNYKE AVVGENGLAV IGVFLKLGAA HQTLQRLVDI LPEIKHKDAR AAMRPFDPST LLPTCWDYWT YAGSLTTPPL TESVTWIIQK EPVEVAPSQL SAFRTLFSF LGEEKMMVN NYRPLQPLMN RKVWASFQAT NEGTRS
Specificity:	Ala40-Ser305
Purity:	> 92 % by SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	< 0.01EU/µg

### Target Details

Target:	CA5A
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## Target Details

Alternative Name:	Carbonic anhydrase 5A/CA5A ( <a href="#">CA5A Products</a> )
Background:	<p>Description: Carbonic Anhydrase catalyzes the reversible reaction of <math>\text{CO}_2 + \text{H}_2\text{O} = \text{HCO}_3^- + \text{H}^+</math>, which is fundamental to many processes such as respiration, renal tubular acidification and bone resorption (1). Topics in a CA meeting (6th International Conference on the CAs, June 20 - 25, 2003, Slovakia) ranged from the use of CAs as markers for tumor and hypoxia in the clinic, as a nutritional supplement in milk, and as a tool for <math>\text{CO}_2</math> removal and mosquito control in industry. Carbonic Anhydrase VA encoded by the CA5A gene is a mitochondrial protein (2, 3). In comparison with another mitochondrial CA (CA5B), CA5A has different tissue distribution and chromosomal location (4, 5). Expression and inhibitor studies of different CAs in the rat pancreatic beta cells indicate that CA5A may be involved in the regulation of insulin secretion (6). CA5A may also participate in the detoxification of ammonia produced in the gastrointestinal tract by providing bicarbonate to carbamyl phosphate synthetase I (7). The amino acid sequence of recombinant human CA5A (residues 40 to 305) is 79 % , 77 % , and 76 % identical to that of canine, bovine, and rat/mouse.</p> <p>Name: CA5, CAV, CAVA, CA5AD, GS1-21A4.1, CA5A</p>

Gene ID:	763
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UniProt:	<a href="#">P35218</a>
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## Application Details

Restrictions:	For Research Use only
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## 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.
Concentration:	0.54 mg/mL
Buffer:	Lyophilized from a 0.22 $\mu\text{m}$ filtered solution of 50 mM NaAc, 50 mM NaCl, 0.05 % Brij-35, pH 5.0.
Storage:	-20 °C, -80 °C
Storage Comment:	Store the lyophilized protein at -20°C to -80°C for 12 months.   After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.