

Recombinant Human Carbonic Anhydrase 1/CA1 Protein (His Tag)

Catalog No. PKSH032156

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description

Synonyms	Carbonic Anhydrase 1;Carbonate Dehydratase I;Carbonic Anhydrase B;CAB;Carbonic Anhydrase I;CA-I;CA1
Species	Human
Expression Host	E.coli
Sequence	Ala2-Phe261
Accession	P00915
Calculated Molecular Weight	29.9 kDa
Observed molecular weight	25-35 kDa
Tag	C-His
Bioactivity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < -20°C.
Formulation	Supplied as a 0.2 µm filtered solution of 12.5mM Tris-HCl, 75mM NaCl, pH 7.5.
Reconstitution	Not Applicable

Background

Carbonic Anhydrase 1 (CA1) is a cytosolic enzyme, belonging to the alpha-carbonic anhydrase family. It is highly expressed in erythrocytes and acts as an early marker for erythroid differentiation. Carbonic anhydrase 1 plays a important role in many biological processes such as calcification, cellular respiration, bone resorption, acid-base balance. It is activated by imidazole, histamine, L-adrenaline, L- and D-histidine, and L- and D-phenylalanine. At the same time, It is inhibited by sulfonamide derivatives and coumarins. In addition, CA1 is a zinc metalloenzyme that has reversible hydration of carbon dioxide. It can hydrate cyanamide to urea.

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