

# Recombinant Human Carbonic Anhydrase 4/CA4 Protein (His Tag)



Catalog Number:PKSH032162

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

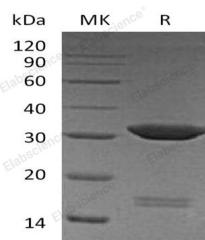
## Description

<b>Synonyms</b>	Carbonic Anhydrase 4;Carbonate Dehydratase IV;Carbonic Anhydrase IV;CA-IV;CA4;CAIV;Car4;RP17
<b>Species</b>	Human
<b>Expression Host</b>	E.coli
<b>Sequence</b>	Ala19-Lys283
<b>Accession</b>	P22748
<b>Calculated Molecular Weight</b>	31.4 kDa
<b>Observed molecular weight</b>	30 kDa
<b>Tag</b>	C-His

## Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per $\mu$ g of the protein as determined by the LAL method.
<b>Storage</b>	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
<b>Shipping</b>	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.
<b>Formulation</b>	Supplied as a 0.2 $\mu$ m filtered solution of 20mM Tris-HCl, 100mM NaCl, pH 8.5.
<b>Reconstitution</b>	Not Applicable

## Data



> 95 % as determined by reducing SDS-PAGE.

## Background

Carbonic Anhydrase 4 (CA4) belongs to the alpha-carbonic anhydrase family. Alpha-carbonic anhydrase is a large family of zinc metalloenzymes that catalyze the reversible hydration of carbon dioxide. Carbonic anhydrase 4 is a glycosylphosphatidyl-inositol-anchored membrane isozyme expressed on the luminal surfaces of pulmonary (and certain other) capillaries and proximal renal tubules. Carbonic anhydrase 4 may stimulate the sodium/bicarbonate transporter activity of SLC4A4 that acts in pH homeostasis. It may have a role in inherited renal abnormalities of bicarbonate transport. Furthermore, Carbonic anhydrase 4 is essential for acid overload removal from the retina and retina epithelium and acid release in the choriocapillaris.

## For Research Use Only

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Toll-free: 1-888-852-8623

Web: [www.elabscience.com](http://www.elabscience.com)

Tel: 1-832-243-6086

Email: [techsupport@elabscience.com](mailto:techsupport@elabscience.com)

Fax: 1-832-243-6017