



Recombinant Protein Technical Manual
Recombinant Human Carbonic Anhydrase 4/CA4
Protein (His Tag)
RPES4253

Product Data:

Product SKU: RPES4253

Size: 10µg

Species: Human

Expression host: E. coli

Uniprot: P22748

Protein Information:

Molecular Mass: 31.4 kDa

AP Molecular Mass: 30 kDa

Tag: C-6His

Bio-activity:

Purity: > 95 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg 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 20mM TrisHCl, 100mM NaCl, pH 8.5.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Carbonic Anhydrase 4; Carbonate Dehydratase IV; Carbonic Anhydrase IV; CA-IV; CA4;CAIV;Car4;RP17

Immunogen Information:

Sequence: Ala19-Lys283

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.