Recombinant Protein Technical Manual

Recombinant Mouse Carbonic Anhydrase 4/CA4 Protein (His Tag)(Active)

RPES2682

Product Data:

Product SKU: RPES2682

Size: 10µg

Species: Mouse

Expression host: HEK293 Cells

Uniprot: NP_031633.1

Protein Information:

Molecular Mass: 31 kDa

AP Molecular Mass: 31 kDa

Tag: C-His

Bio-activity: Measured by its esterase activity. The specific activity is >10 pmoles/min/µg.

Purity: > 98 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU per µg of the protein as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile PBS, pH 7.4

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

Application:

Synonyms: CA4;CAIV;CA-IV;Car4;Carbonate dehydratase IV;carbonic anhydrase 4;carbonic anhydrase IVRP17;carbonic dehydratase IV;EC4.2.1.1;retinitis pigmentosa 17;RP17

Immunogen Information:

Sequence: Met 1-Ser 277

Background:

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. The carbonic anhydrasekl (CA) family consists of at least 11 enzymatically active members and a few inactive homologous proteins. Carbonic anhydrase IV (CAIV) is a membrane-associated enzyme anchored to plasma membrane surfaces by a phosphatidylinositol glycan linkage. CAIV is a high-activity isozyme in CO2 hydration comparable to that of CAII. Furthermore, CAIV is more active in HCO3- dehydration than is CAII. However, the esterase activity of CAIV is decreased 150-fold compared to CAII.