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

Catalog No. PKSM040721

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

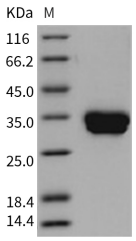
Description

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
Species	Mouse
Expression Host	HEK293 Cells
Sequence	Met 1-Ser 277
Accession	NP_031633.1
Calculated Molecular Weight	31.0 kDa
Observed molecular weight	31 kDa
Tag	C-His
Bioactivity	Measured by its esterase activity. The specific activity is > 10 pmoles/min/μg.

Properties

Purity	> 98 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80℃. 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 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



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Background

The carbonic anhydrases (or carbonate dehydratases) are classified as metalloenzyme for its zinc ion prosthetic group and

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Web: www.elabscience.com Email: techsupport@elabscience.com

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.

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