

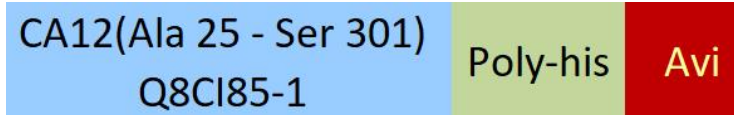
Synonym

Carbonic Anhydrase XII,CA XII,Car12,CA-XII,Carbonate dehydratase XII

Source

Biotinylated Mouse Carbonic Anhydrase XII Protein, His,Avitag(CAI-M82E3) is expressed from human 293 cells (HEK293). It contains AA Ala 25 - Ser 301 (Accession # [Q8CI85-1](#)).
 Predicted N-terminus: Ala 25

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus. The protein has a calculated MW of 35.0 kDa. The protein migrates as 42-47 kDa under reducing (R) condition (SDS-PAGE).

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>90% as determined by SDS-PAGE.
 >90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 150 mM NaCl, PH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

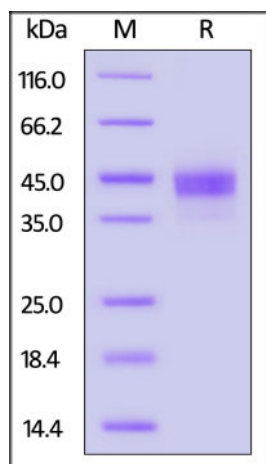
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

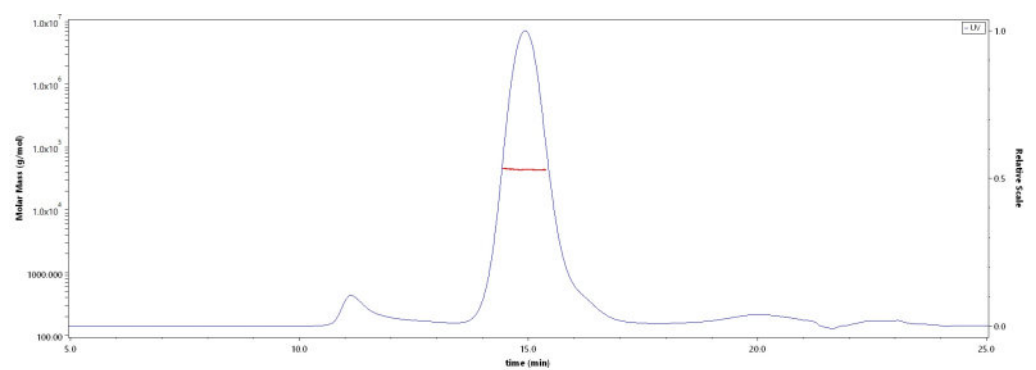


Biotinylated Mouse Carbonic Anhydrase XII Protein, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

Bioactivity

Measured by its esterase activity. The specific activity is >50 pmol/min/µg (QC tested).

SEC-MALS



The purity of Biotinylated Mouse Carbonic Anhydrase XII Protein, His,Avitag (Cat. No. CAI-M82E3) is more than 90% and the molecular weight of this protein is around 38-48 kDa verified by SEC-MALS.

[Report](#)

Background

This gene encodes a membrane-bound member of the alpha carbonic anhydrase family of enzymes that catalyze the reversible hydration of carbon dioxide to bicarbonate. These proteins participate in a variety of biological processes, including respiration, calcification, acid-base balance, bone resorption, and the formation of aqueous humor, cerebrospinal fluid, saliva, and gastric acid. Alternative splicing results in multiple transcript variants.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.