

Biotinylated Cynomolgus Carbonic Anhydrase XII Protein, His,Avitag™ (active enzyme, MALS verified)

Catalog # CAI-C82E3



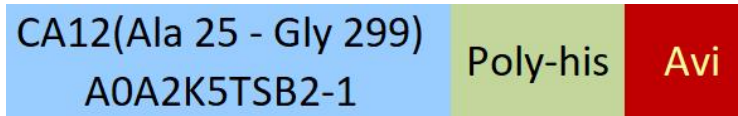
Synonym

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

Source

Biotinylated Cynomolgus Carbonic Anhydrase XII Protein, His,Avitag(CAI-C82E3) is expressed from human 293 cells (HEK293). It contains AA Ala 25 - Gly 299 (Accession # [A0A2K5TSB2-1](#)).
Predicted N-terminus: Ala 25

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 34.5 kDa. The protein migrates as 42-52 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

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.

Purity

>90% as determined by SDS-PAGE.
>95% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm filtered solution in 50mM Tris,150mM NaCl,PH7.5 with trehalose as protectant.
Contact us for customized product form or formulation.

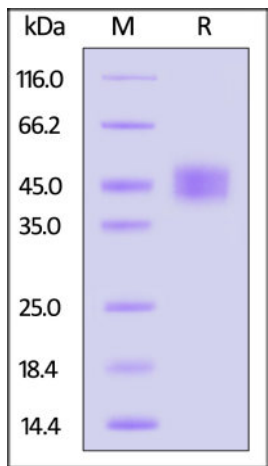
Reconstitution

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

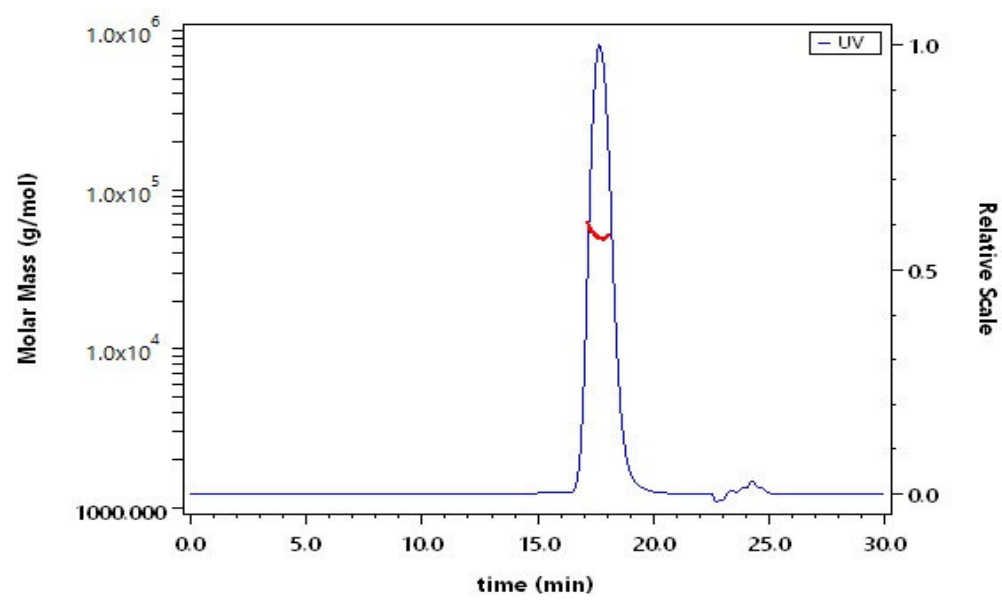
For long term storage, the product should be stored at lyophilized state at -20°C or lower.
Please avoid repeated freeze-thaw cycles.
This product is stable after storage at:
• -20°C to -70°C for 12 months in lyophilized state;
• -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



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

SEC-MALS



The purity of Biotinylated Cynomolgus Carbonic Anhydrase XII Protein, His,Avitag (Cat. No. CAI-C82E3) is more than 95% and the molecular weight of this protein is around 45-60 kDa verified by SEC-MALS.
[Report](#)

Bioactivity



Biotinylated Cynomolgus Carbonic Anhydrase XII Protein, His,Avitag™ (active enzyme, MALS verified)

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Measured by its esterase activity. The specific activity is >10 pmol/min/μg (QC tested).

Background

Carbonic anhydrases (CAs) are a large family of zinc metalloenzymes that catalyze the reversible hydration of carbon dioxide. They 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.

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