

Synonym

Serum albumin,ALB,Alb

Source

Biotinylated Cynomolgus Serum Albumin, His,Avitag (CSA-C82E5) is expressed from human 293 cells (HEK293). It contains AA Asp 25 - Ala 608 (Accession # [A2V9Z4-1](#)).

Predicted N-terminus: Asp 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 69.7 kDa. The protein migrates as 70 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Biotinylation

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

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

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization.

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

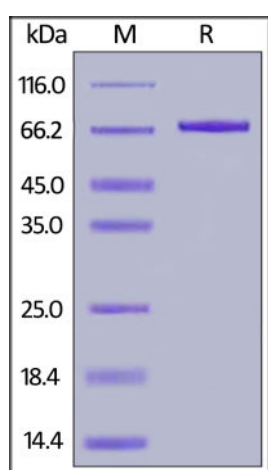
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

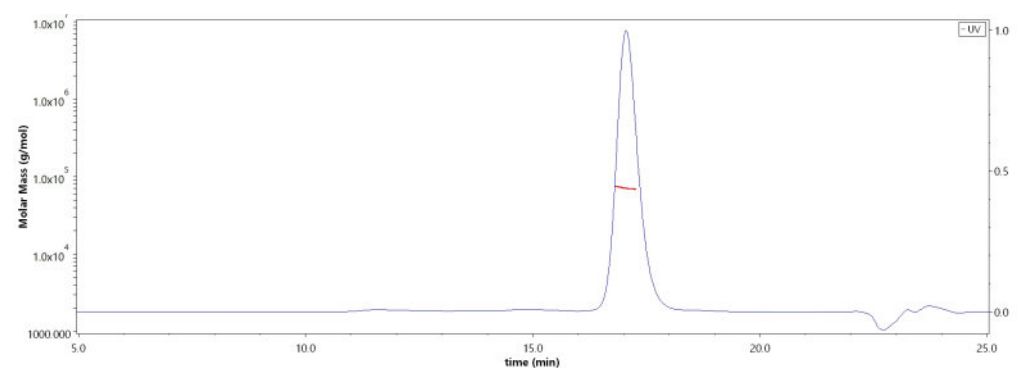
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Cynomolgus Serum Albumin, 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 95%.

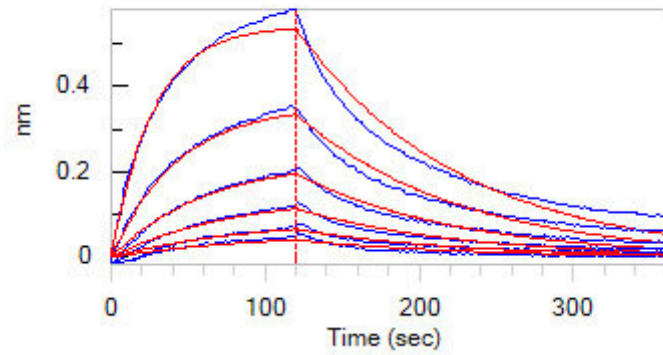
SEC-MALS



The purity of Biotinylated Cynomolgus Serum Albumin, His,Avitag (Cat. No. CSA-C82E5) is more than 90% and the molecular weight of this protein is around 60-75 kDa verified by SEC-MALS.

[Report](#)

Bioactivity-BLI



Loaded Biotinylated Cynomolgus Serum Albumin, His,Avitag (Cat. No. CSA-C82E5) on SA Biosensor, can bind Cynomolgus / Rhesus macaque FCGRT&B2M Heterodimer Protein, His Tag&Strep II Tag (BLI verified)(Cat. No. FCM-C5284) with an affinity constant of 0.684 μ M as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Background

serum albumin (SA) is also known as ALB, which is the main protein of plasma and has a good binding capacity for water, Ca²⁺, Na⁺, K⁺, fatty acids, hormones, bilirubin and drugs. The main function of SA is the regulation of the colloidal osmotic pressure of blood. As Major zinc transporter in plasma, SA typically binds about 80% of all plasma zinc. A variant structure of albumin could lead to increased binding of zinc resulting in an asymptomatic augmentation of zinc concentration in the blood. Defects in serum albumin can cause familial dysalbuminemic hyperthyroxinemia which is a form of euthyroid hyperthyroxinemia that is due to increased affinity of serum albumin for T4. It is the most common cause of inherited euthyroid hyperthyroxinemia in Caucasian population.

Clinical and Translational Updates

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