

Synonym

Serum albumin,ALB,Alb

Source

Rat Serum Albumin, His Tag(RSA-R52H1) is expressed from human 293 cells (HEK293). It contains AA Glu 25 - Ala 608 (Accession # [P02770](#)).

Predicted N-terminus: Glu 25

Molecular Characterization

ALB(Glu 25 - Ala 608) P02770	Poly- his
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This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 67.8 kDa. The protein migrates as 64-68 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 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.

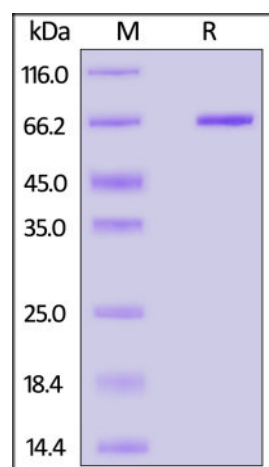
Storage

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

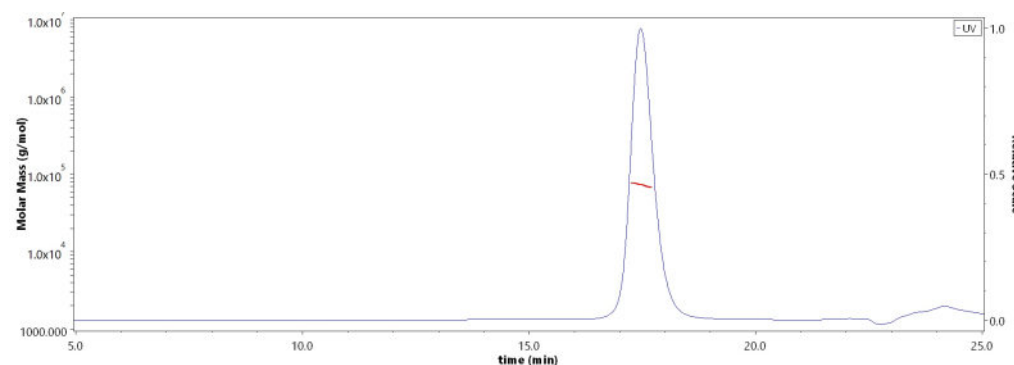
Please avoid repeated freeze-thaw cycles.

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.

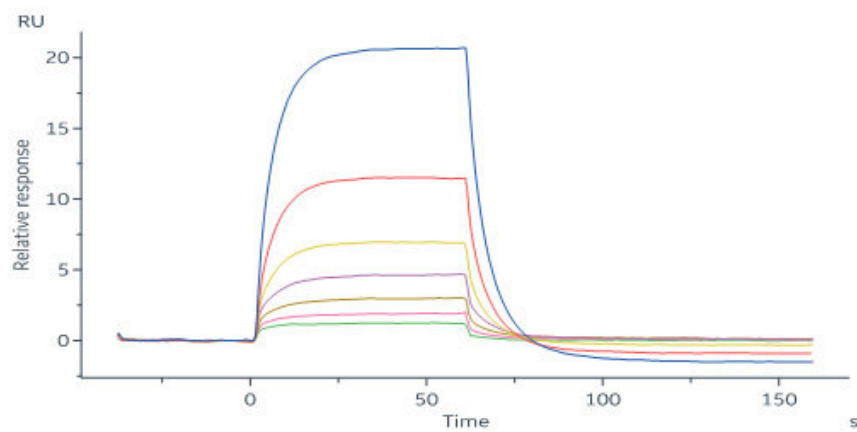
SDS-PAGE

Rat Serum Albumin, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-SPR**SEC-MALS**

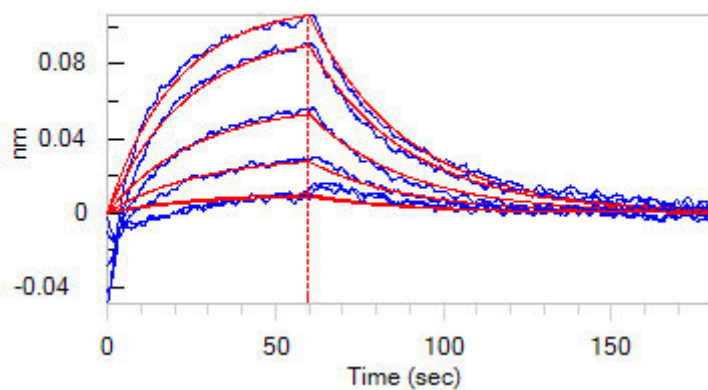
The purity of Rat Serum Albumin, His Tag (Cat. No. RSA-R52H1) is more than 95% and the molecular weight of this protein is around 65-80kDa verified by SEC-MALS.

[Report](#)



Rat Serum Albumin, His Tag (Cat. No. RSA-R52H1) immobilized on CM5 Chip can bind Rat FCGRT&B2M Heterodimer Protein, His Tag&Strep II Tag (Cat. No. FCM-R5287) with an affinity constant of $4.98 \mu\text{M}$ as determined in a SPR assay (Biacore 8K) (QC tested).

Bioactivity-BLI



Loaded Biotinylated Rat FCGRT&B2M Heterodimer Protein, Avitag,His Tag&Strep II Tag (Cat. No. FCM-R82W7) on SA Biosensor, can bind Rat Serum Albumin, His Tag (Cat. No. RSA-R52H1) with an affinity constant of $4.59 \mu\text{M}$ 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, Ca^{2+} , 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.