



## Synonym

Serum albumin,ALB,Alb

## Source

Human Serum Albumin, His Tag(HSA-H5220) is expressed from human 293 cells (HEK293). It contains AA Asp 25 - Leu 609 (Accession # [P02768-1](#)).

Predicted N-terminus: Asp 25

## Molecular Characterization

ALB(Asp 25 - Leu 609)  
P02768-1 Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 67.4 kDa. The protein migrates as 65-80 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) 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.

>90% 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

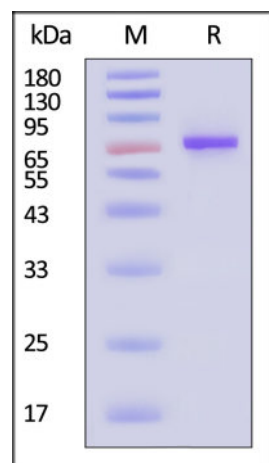
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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.

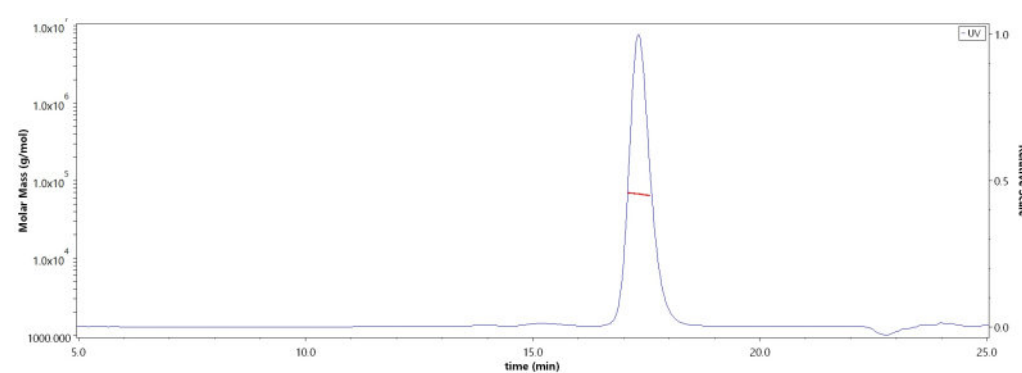
## SDS-PAGE



Human Serum Albumin, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

## Bioactivity-SPR

## SEC-MALS



The purity of Human Serum Albumin, His Tag (Cat. No. HSA-H5220) is more than 90% and the molecular weight of this protein is around 60-75 kDa verified by SEC-MALS.

[Report](#)

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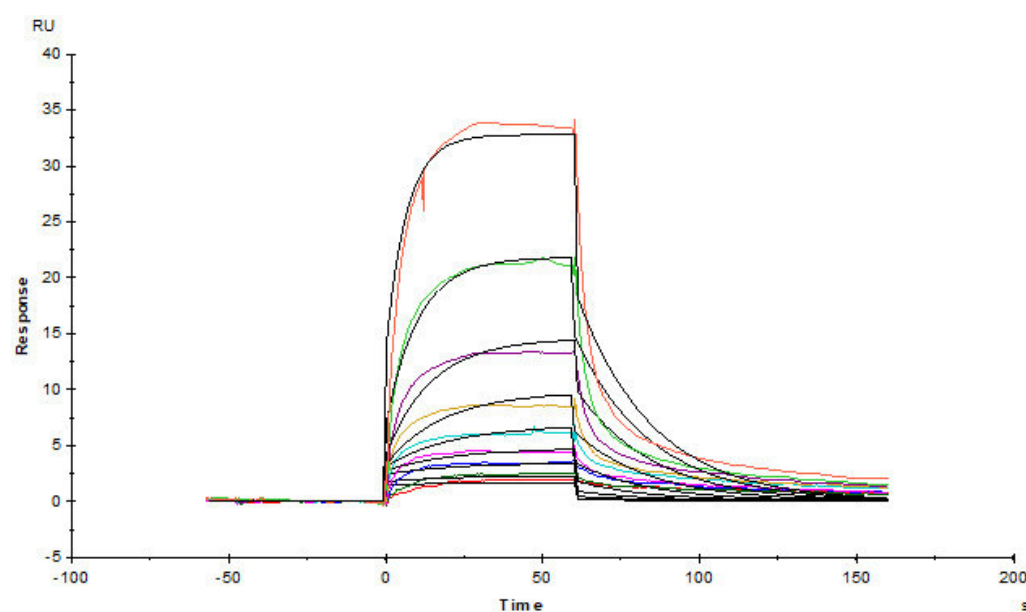


## Human Serum Albumin Protein, His Tag (MALS verified)

Catalog # HSA-H5220

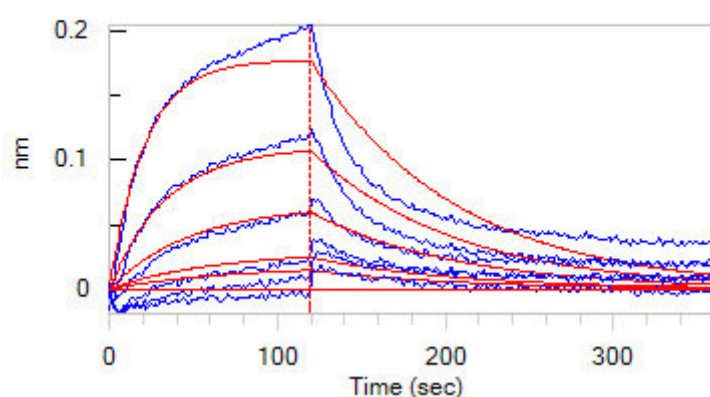


BIOSYSTEMS  
**Acro**



**Human Serum Albumin Protein, His Tag (Cat. No. HSA-H5220)** immobilized on CM4 Chip can bind **Human FCGRT&B2M Heterodimer Protein, His Tag (Cat. No. FCN-H52W7)** with an affinity constant of **0.381  $\mu$ M** as determined in a SPR assay (Biacore T200) (Routinely tested).

### Bioactivity-BLI



**Loaded Biotinylated Human FCGRT&B2M Heterodimer Protein, His, Avitag (Cat. No. FCM-H82W7)** on SA Biosensor, can bind **Human Serum Albumin, His Tag (Cat. No. HSA-H5220)** with an affinity constant of **0.647  $\mu$ 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,  $\text{Ca}^{2+}$ ,  $\text{Na}^{+}$ ,  $\text{K}^{+}$ , 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

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