



Synonym

Serum albumin, ALB, Alb

Source

Human Serum Albumin Protein, premium grade(SEA-H5215) is expressed from human 293 cells (HEK293). It contains AA Asp 25 - Leu 609 (Accession # P02768-1).

Predicted N-terminus: Asp 25

It is produced under our rigorous quality control system that incorporates a comprehensive set of tests including sterility and endotoxin tests. Product performance is carefully validated and tested for compatibility for cell culture use or any other applications in the early preclinical stage. When ready to transition into later clinical phases, we also offer a custom GMP protein service that tailors to your needs. We will work with you to customize and develop a GMP-grade product in accordance with your requests that also meets the requirements for raw and ancillary materials use in cell manufacturing of cell-based therapies.

Molecular Characterization

ALB(Asp 25 - Leu 609) P02768-1

This protein carries no "tag".

The protein has a calculated MW of 66.5 kDa. The protein migrates as 63 kDa±3 kDa under reducing (R) condition, and 54 kDa±3 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.01 EU per µg by the LAL method.

Host Cell DNA

<0.02 ng/µg of protein tested by qPCR.

Sterility

Negative

Mycoplasma

Negative.

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

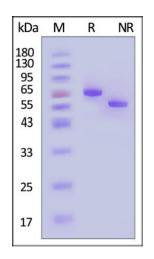
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

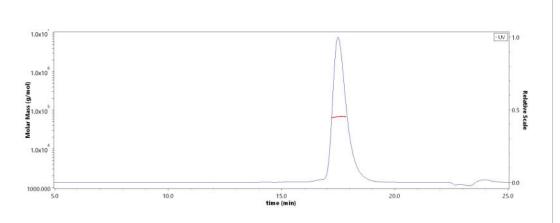
This product is stable after storage at:

- -20°C to -70°C for 24 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



SEC-MALS





Human Serum Albumin Protein, premium grade

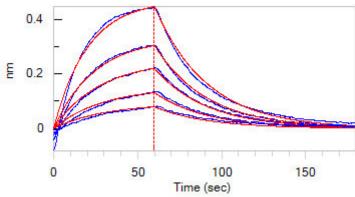
Catalog # SEA-H5215



Human Serum Albumin Protein, premium grade on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Prestained Protein Marker).

The purity of Human Serum Albumin Protein, premium grade (Cat. No. SEA-H5215) is more than 95% and the molecular weight of this protein is around 60-80 kDa verified by SEC-MALS. Report

Bioactivity-BLI



Loaded Biotinylated Human FCGRT&B2M Heterodimer Protein, His, Avitag (Cat. No. FCM-H82W7) on SA Biosensor, can bind Human Serum Albumin Protein, premium grade (Cat. No. SEA-H5215) with an affinity constant of 1.84 µM as determined in BLI assay (ForteBio Octet Red96e) (QC 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