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California Bioscience

Product Datasheet

Product Name	Human Serum Albumin Recombinant, Plant
Cata No	CB501452
Source	*Rice Grain*
Synonyms	Serum albumin, ALB, PRO0883, PRO0903, PRO1341, DKFZp779N1935, GIG20, GIG42, PRO1708, PRO2044, PRO2619, PRO2675, UNQ696, SA, HSA.

Description

Albumin is synthesized in the liver as preproalbumin which has an N-terminal peptide that is removed before the nascent protein is released from the rough endoplasmic reticulum. The product, proalbumin, is in turn cleaved in the Golgi vesicles to produce the secreted albumin. Albumin is a soluble, monomeric protein which comprises about one-half of the blood serum protein. Albumin functions primarily as a carrier protein for steroids, fatty acids, and thyroid hormones and plays a role in stabilizing extracellular fluid volume. Mutations in this gene on chromosome 4 result in various anomalous proteins. Albumin is a globular unglycosylated serum protein of molecular weight 65,000. The human albumin gene is 16,961 nucleotides long from the putative 'cap' site to the first poly (A) addition site. It is split into 15 exons which are symmetrically placed within the 3 domains that are thought to have arisen by triplication of a single primordial domain.
HSA is widely used to stabilize blood volume generally from donors but the fear of contamination such as HIV & Hepatitis has enticed great interest in the recombinant form which is identical to the natural blood.
HSA Human Recombinant produced in Plant is a non-glycosylated, polypeptide chain containing 585 amino acids and having a molecular mass of 67 kDa.The optimum concentration for recombinant Albumin to be used in cell culture ranges between 0.5gr to 2gr per liter[3].
The recombinant Albumin is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered white lyophilized powder.

Purity

Greater than 97% as determined by:
(a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.

Formulation

The Recombinant Albumin was lyophilized with sodium chloride. A 10% w/v solution when dissolved in water will contain 50mM NaCl.

Stability

Recombinant Albumin although stable at 4°C for 3 weeks, should be stored at -18°C.
Please prevent freeze-thaw cycles.

Applications

Formulation of Protein Therapeutics
Cell Storage: Cryopreservation
Vaccine formulation and manufacturing
Development of mammalian cell cultures
Infertility treatments
Coating for medical devices
Drug delivery
In vivo diagnostics

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