

Recombinant Human Albumin, Animal Free, Antibiotics Free

Cat. No. ALB-47H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant Human Serum Albumin produced in *Rice Grain* 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. The recombinant Albumin is purified by proprietary chromatographic techniques.

Species

Human

Source

Rice Grain

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.

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

GENE INFORMATION

Gene Name	ALB albumin [Homo sapiens]
Synonyms	Albumin; PRO0883; PRO0903; PRO1341; DKFZp779N1935; ALB; serum albumin; growth-inhibiting protein 20; cell growth inhibiting protein 42
Gene ID	213
mRNA Refseq	NM_000477
Protein Refseq	NP_000468
MIM	103600
UniProt ID	P02768

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Pathway	Hemostasis; Metabolism of lipids and lipoproteins
Function	DNA binding; antioxidant activity; copper ion binding; drug binding; fatty acid binding; metal ion binding; oxygen binding; protein binding; pyridoxal phosphate binding; toxin binding
PDB rendering based on 1e7h.	