

Recombinant Human Albumin

Cat. No. ALB-48H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human Serum Albumin produced in yeast is a single, non-glycosylated, polypeptide chain containing 585 amino acids and having a molecular mass of 66441 Dalton. The Human Serum Albumin is purified by proprietary chromatographic techniques.

Species Human

Source S.Cerevisiae

Description Albumin is synthesized in the liver as prealbumin 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 yellowish liquid formulation.
Purity	Greater than 99.98% as determined by both: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Formulation	Each ml contains 145mM sodium chloride, 32mM sodium octanoate and 15g/ml tween 80.
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	Human Serum Albumin should be stored at temperatures below 30°C. NOTE: Do not freeze!

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.



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