

Human Albumin / HSA (recombinant plant)

Human Serum Albumin, recombinant

Synonyms: Serum albumin, ALB, PRO0883, PRO0903, PRO1341, DKFZp779N1935, GIG20, GIG42, PRO1708, PRO2044, PRO2619, PRO2675, UNQ696, SA, HSA.

PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING

Size	Order #	Lot #	Expiry Date
1 g	2834.958.188		
5 g	2834.958.588		
10 g	2834.958.108		
100 g	2834.958.177		

Please enquire for bulk quantities and other vial sizes

Description

Recombinant Human Serum Albumin (HSA) derived from *oryza sativa* is a 585 amino acid protein, with a molecular mass of 67 kDa. 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. 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. Mutations in this gene on chromosome 4 result in various anomalous proteins. 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 a recombinant form which is identical to the natural blood.

- **Source** Oryza sativa (rice)
- **Purity** $\geq 96\%$ (SDS-PAGE)
- **Endotoxin level** $\leq 0.1\text{ng}/\mu\text{g}$ ($\leq 1\text{EU}/\mu\text{g}$)
- **Stabilizer** None
- **Buffer** Sodium Chloride (50mM)*
- **Physical state** Sterile Filtered white lyophilized powder

Biological Activity

Application in Cell Culture: The optimal concentration for recombinant Human Serum Albumin in cell culture ranges between 500mg/l and 2000mg/l. For cell lines we recommend a gradual adaptation over several passages. As media supplement it can be used up to concentrations of 5000mg/l.

Reconstitution

We recommend a quick spin followed by reconstitution in water. A 10% w/v solution in water will contain 50mM NaCl.

Stability

The lyophilized protein is stable at room temperature for up to 1 month and at least until the lot specific expiry date if kept below -18°C . Reconstituted HSA should be stored in working aliquots. **Please avoid repeated freeze-thaw cycles.**

Usage: For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.

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