



# Recombinant Bovine albumin (ALB)

<b>Product Code</b>	CSB-EP001561BO-B
<b>Storage</b>	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
<b>Uniprot No.</b>	P02769
<b>Storage Buffer</b>	Lyophilized from Tris/PBS-based buffer, 6% Trehalose, pH 8.0
<b>Product Type</b>	Recombinant Proteins
<b>Immunogen Species</b>	Bos taurus (Bovine)
<b>Purity</b>	>85% (SDS-PAGE)
<b>Source</b>	E.coli
<b>Target Names</b>	ALB
<b>Protein Names</b>	Recommended name: Serum albumin Alternative name(s): BSA Allergen= Bos d 6
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	Tag type will be determined during the manufacturing process.
<b>Protein Length</b>	Partial

## Description

Albumin (ALB) stands as the predominant plasma protein, pivotal in diverse physiological processes [1]. It serves as a carrier protein, facilitating the transport and delivery of essential molecules like metabolites and fatty acids throughout the body [1]. In addition, albumin regulates blood osmotic pressure, crucial for maintaining proper fluid balance in the circulatory system [1]. Its multifunctional role underscores its significance in critical physiological functions [2]. In the healing process, its 66-kDa protein form plays a notable role [3]. Moreover, albumin participates in the transport of free fatty acids, particularly long-chain fatty acids, crucial for lipid metabolism [4][5]. The developmentally regulated presence of albumin in the brain hints at its potential importance in neural cell differentiation [6][7]. Furthermore, albumin acts as a signaling molecule modulating cell function, implicating its involvement in cellular signaling pathways [8]. Structural and immunologic characterization of albumins across species offers insights into their similarities and differences, revealing evolutionary aspects of albumin function [9].

## References:

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analysis of fluorescence lifetime for probing binding sites in albumin with near-infrared fluorescent molecular probes", *Photochemistry and Photobiology*, vol. 83, no. 6, p. 1371-1378, 2007.

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[3] M. Yadav, A. Singh, S. Ali, N. Rizivi, S. Hussain, & V. Kumar, "Role of serum albumin in fracture healing", *International Journal of Biomedical Research*, vol. 6, no. 7, p. 452, 2015. <https://doi.org/10.7439/ijbr.v6i7.2259>

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[9] K. Majorek, P. Porebski, A. Dayal, M. Zimmerman, K. Jablonska, A. Stewart et al., "Structural and immunologic characterization of bovine, horse, and rabbit serum albumins", *Molecular Immunology*, vol. 52, no. 3-4, p. 174-182, 2012. <https://doi.org/10.1016/j.molimm.2012.05.011>

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### Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

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### Shelf Life

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