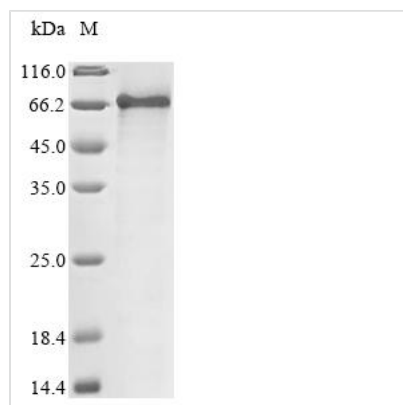




Recombinant Bovine albumin (ALB)

Product Code	CSB-YP001561BO
Abbreviation	Recombinant Bovine ALB protein
Storage	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.
Uniprot No.	P02769
Form	Liquid or Lyophilized powder
Storage Buffer	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose.
Product Type	Recombinant Protein
Immunogen Species	Bos taurus (Bovine)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	DTHKSEIAHRFKDLGEEHFKGLVLIAFSQYLQQCPFDEHVKLVNELTEFAKTCV ADESHAGCEKSLHTLFGDELCKVASLRETYGDMADCCEKQEPERNECFLSHK DDSPDLPKLKPDPTLCDEFKADEKKFWGKYLEIARRHPYFYAPELLYYANK YNGVFQECCQAEDKGACLLPKIETMREKVLASSARQRLRCASIQKFGERALKA WSVARLSQKFPKAEFVEVTKLVTDLT KVHKECCHGDLLECADDRADLAKYICD NQDTISSKLKECCDKPLLEKSHCIAEVEKDAIPENLPPLTADFAEDKDVCKNYQ EAKDAFLGSFLYEYSRRHPEYAVSVLLRLAKEYEATLEECCA KDDPHACYSTV FDKLKHLVDEPQNLIKQNC DQFEKLGEYGFQNALIVRYTRKVPQVSTPTLVEVS RSLGKVGTRCCTKPESERMPCTEDYLSLILNRLCVLHEKTPVSEKVT KCCTES LVNRRPCFSALTPDETYVPKAFDEKLFTHADICTLPDTEKQIKKQTALVELLKH KPKATEEQ LKTVMENFVAFVDKCCAADDKEACFAVEGPKLVVSTQTALA
Research Area	Cardiovascular
Source	Yeast
Target Names	ALB
Expression Region	25-607aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	C-terminal 6xHis-Myc-tagged
Mol. Weight	70.1 kDa
Protein Length	Full Length of Mature Protein
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The process of synthesizing the recombinant bovine ALB protein includes transfecting yeast cells with a DNA expression vector containing the gene for the ALB protein. Subsequently, the cells are cultured to induce the expression of the intended protein. The recombinant bovine ALB protein is then collected and purified from the cell lysate through affinity purification. It exhibits a purity exceeding 85%, as verified by SDS-PAGE.

Albumin, a crucial protein in the human body, plays various essential roles due to its unique properties [2]. It acts as a physiological buffer, maintaining colloid oncotic pressure in healthy individuals [1]. Human serum albumin (HSA), the most abundant protein in blood circulation, exhibits extraordinary ligand binding capacity, making it a transporter for a wide range of substances [3][4]. Albumin is involved in critical processes such as endocytosis, which is particularly relevant in neurons [5].

Albumin interacts with various molecules and undergoes modifications, as observed in the increased clearance of glycated albumin by proximal tubule cells [6]. The evolution of albumin can be traced back to early vertebrates, indicating its fundamental presence in mammalian plasma [7]. The production of serum albumin increases significantly after birth, becoming the predominant protein in adult serum [8].

References:

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- [8] L. Jagodzinski, T. Sargent, M. Yang, C. Glackin, & J. Bonner, Sequence homology between rnas encoding rat alpha-fetoprotein and rat serum albumin., *Proceedings of the National Academy of Sciences*, vol. 78, no. 6, p. 3521-3525, 1981. <https://doi.org/10.1073/pnas.78.6.3521>

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.

Shelf Life

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.