

Serum Albumin/ALB Protein, Mouse (P.pastoris, His)

Cat. No.:	HY-P71710
Synonyms:	Alb 1; alb; ALBU_MOUSE; Albumin 1; Albumin; Serum albumin
Species:	Mouse
Source:	P. pastoris
Accession:	P07724 (E25-A608)
Gene ID:	11657
Molecular Weight:	Approximately 67.9 kDa

PROPERTIES

AA Sequence

E A H K S E I A H R	Y N D L G E Q H F K	G L V L I A F S Q Y	L Q K C S Y D E H A
K L V Q E V T D F A	K T C V A D E S A A	N C D K S L H T L F	G D K L C A I P N L
R E N Y G E L A D C	C T K Q E P E R N E	C F L Q H K D D N P	S L P P F E R P E A
E A M C T S F K E N	P T T F M G H Y L H	E V A R R H P Y F Y	A P E L L Y Y A E Q
Y N E I L T Q C C A	E A D K E S C L T P	K L D G V K E K A L	V S S V R Q R M K C
S S M Q K F G E R A	F K A W A V A R L S	Q T F P N A D F A E	I T K L A T D L T K
V N K E C C H G D L	L E C A D D R A E L	A K Y M C E N Q A T	I S S K L Q T C C D
K P L L K K A H C L	S E V E H D T M P A	D L P A I A A D F V	E D Q E V C K N Y A
E A K D V F L G T F	L Y E Y S R R H P D	Y S V S L L L R L A	K K Y E A T L E K C
C A E A N P P A C Y	G T V L A E F Q P L	V E E P K N L V K T	N C D L Y E K L G E
Y G F Q N A I L V R	Y T Q K A P Q V S T	P T L V E A A R N L	G R V G T K C C T L
P E D Q R L P C V E	D Y L S A I L N R V	C L L H E K T P V S	E H V T K C C S G S
L V E R R P C F S A	L T V D E T Y V P K	E F K A E T F T F H	S D I C T L P E K E
K Q I K K Q T A L A	E L V K H K P K A T	A E Q L K T V M D D	F A Q F L D T C C K
A A D K D T C F S T	E G P N L V T R C K	D A L A	

Appearance Lyophilized powder.

Formulation Lyophilized after extensive dialysis against solution in PBS, 6% Trehalose, pH 7.4.

Endotoxin Level <1 EU/μg, determined by LAL method.

Reconstitution It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH₂O.

Storage & Stability Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

Serum Albumin/ALB Protein is a versatile protein that binds to water, calcium, sodium, potassium, fatty acids, hormones, bilirubin, and drugs. Its primary role is to regulate the colloidal osmotic pressure of blood. It is the major transporter of zinc in plasma, binding to approximately 80% of all plasma zinc. Similarly, it is the major transporter of calcium and magnesium, binding to approximately 45% of circulating calcium and magnesium in plasma. It may have more than two calcium-binding sites and could also bind calcium in a non-specific manner. The shared binding site between zinc and calcium suggests a potential interaction and transport mechanism between these two elements in the blood. Additionally, ALB binds to the bacterial siderophore enterobactin, inhibiting its ability to facilitate iron uptake by E.coli from ferric transferrin. This limitation of iron utilization may restrict the growth of enteric bacteria such as E.coli. However, ALB does not hinder iron uptake facilitated by the bacterial siderophore aerobactin. ALB also interacts with FCGRT, regulating its own homeostasis, and interacts with TASOR. In plasma, it forms a covalently-linked complex with chromophore-bound alpha-1-microglobulin, but this interaction does not interfere with the binding of fatty acids to ALB.

Caution: Product has not been fully validated for medical applications. For research use only.

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