

Serum Albumin/ALB Protein, Rabbit (HEK293, His)

Cat. No.:	HY-P78737
Synonyms:	Serum albumin; ALB; Alb
Species:	Rabbit
Source:	HEK293
Accession:	P49065-1 (E25-G608)
Gene ID:	100009195
Molecular Weight:	60-70 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized a 0.22 µm filtered solution of PBS, pH 7.4. Normally trehalose is added as protectant before lyophilization.
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 ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
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	<p>ALB Protein, a versatile molecule, binds water, Ca(2+), Na(+), K(+), fatty acids, hormones, bilirubin, and drugs. Its primary role is to regulate the colloidal osmotic pressure of blood. Acting as a major zinc transporter in plasma, it binds around 80% of all plasma zinc, while also functioning as a major calcium and magnesium transporter, binding approximately 45% of circulating calcium and magnesium in plasma. ALB Protein may possess multiple calcium-binding sites and can potentially bind calcium in a non-specific manner. The interaction between zinc and calcium at residue Asp-273 suggests a crosstalk between zinc and calcium transport in the blood. Its affinity follows the rank order of zinc > calcium > magnesium. Furthermore, ALB Protein interacts with the bacterial siderophore enterobactin, inhibiting its iron uptake and potentially limiting the growth of enteric bacteria such as E.coli. Notably, it does not hinder iron uptake by the bacterial siderophore aerobactin. ALB Protein also plays a role in ALB homeostasis through its interaction with FCGRT, and it interacts with TASOR as well. In plasma, ALB Protein forms a covalently-linked complex with chromophore-bound alpha-1-microglobulin, without impeding the binding of fatty acids to ALB.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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