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Datasheet for 009-0633

Human Albumin Biotin Conjugated

Overview

Description:	Human Albumin Biotin Conjugated - 009-0633
Item No.:	009-0633
Size:	1 mg
Applications:	Dot Blot, ELISA, Other
Origin:	Human

Product Details

Background:	Human albumin or serum albumin is encoded by the ALB gene and is the most abundant plasma protein in mammals. Human albumin is essential for maintaining the osmotic pressure needed for proper distribution of body fluids between intravascular compartments and body tissues. Human albumin also acts as a plasma carrier by non-specifically binding several hydrophobic steroid hormones and as a transport protein for hemin and fatty acids. Too much serum albumin in the body can be harmful.
Synonyms:	Human Albumin Biotin Conjugated
Species of Origin:	Human
Conjugate:	Biotin
Format:	Albumin
Type:	Native Protein
F/P Ratio:	10-20

Target Details

Purity/Specificity:	This product was prepared from normal serum delipidation a multi-stage process including selective precipitation. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-biotin, anti-Human Albumin and anti-Human Serum.
Relevant Links:	• GeneID - 213 • UniProtKB - P02768 • NCBI - AAA98797.1

Application Details

Tested Applications:	Dot Blot
Suggested Applications:	ELISA, Other (Based on references)
Application Note:	Human Albumin biotin conjugated has been tested in dot blot and can be used in SDS, Western Blotting, ELISA experiments and other immunological assays.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

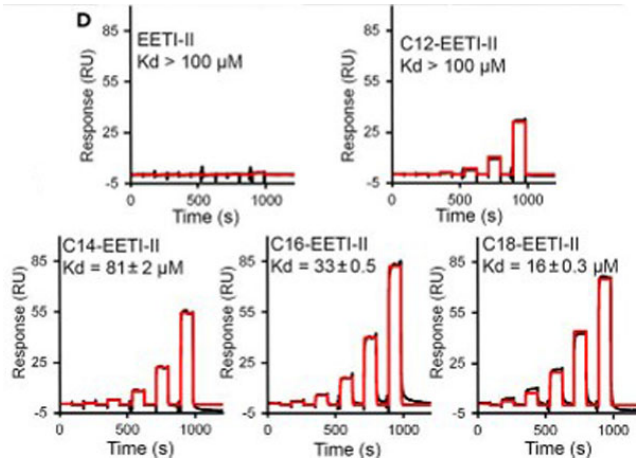
Formulation

Physical State:	Lyophilized
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	10 mg/ml Polyethylene Glycol (PEG-8000)
Reconstitution Volume:	1.0 mL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

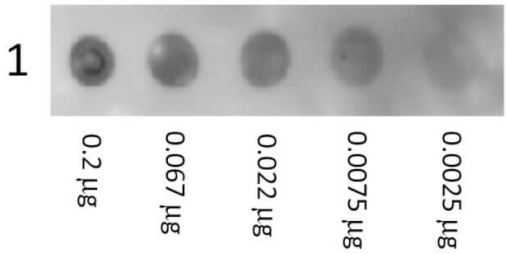
Shipping & Handling

Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Surface Plasmon Resonance (SPR)
Fatty acylated EETI-II peptides bind to serum albumin.
(D) Surface Plasmon Resonance (SPR) shows fatty acylated EETI-II peptides bind to human serum albumin. SPR sensor chip SA was coated with biotinylated human serum albumin and subjected to the peptides at varying concentrations (30, 10, 3.33, 1.11, 0.37, 0.123 µM) in PBST (0.05% Tween 20). Shown are measured binding responses (black) and curve fits (red) to a two-state model, assuming two preferred fatty acid binding sites on albumin. Representative data from three independent experiments are shown. Binding constant values represent mean ± S.E.M. Figure 4. PMID: 34712919.



Dot Blot
Dot Blot showing the detection Biotin conjugated Human Albumin. A three-fold serial dilution of Biotin conjugated Human Albumin (p/n 009-0633) starting at 200ng was spotted onto 0.45 µm nitrocellulose and blocked in 1% BSA-TTBS (p/n MB-013, diluted to 1X) 30 min at 20°C. An HRP conjugated Streptavidin (p/n S000-03) was incubated 1:40,000 for 30 min at 20°C and imaged using the Bio-Rad VersaDoc® 4000 MP.

References

- Carnero LAR et al. Identification of polyreactive antibodies by high throughput enzyme-linked immunosorbent assay and surface Plasmon resonance. *J Immunol Methods.* (2025)
- Gao X et al. A phage-displayed disulfide constrained peptide discovery platform yields novel human plasma protein binders. *PLoS One.* (2024)
- Gao X et al. Fatty acylation enhances the cellular internalization and cytosolic distribution of a cystine-knot peptide. *iScience.* (2021)

Disclaimer

No test method can provide total assurance that the hepatitis B virus, hepatitis C virus, human immunodeficiency virus, or any other infectious agents are absent. Thus, all blood products, including purified proteins derived from human blood sources, should be handled at Biosafety Level 2 as recommended by the CDC\NIH manual entitled Biosafety in Microbiological and Biomedical Laboratories for potentially infectious human serum, blood specimens or proteins derived from same. Source material for the human blood product supplied to your facility has been tested for the detection of HIV antibody, Hepatitis B surface antigen, antibody to Hepatitis C, HIV 1 antigen(s), antibody to HTLV - I/II, and syphilis by FDA guidelines. All units were found to be non-reactive/negative for these tests. All human blood source material is collected in FDA licensed centers and is tested with FDA approved test kits.

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