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Datasheet for 600-401-033

Human Serum Albumin Antibody

Overview

Description:	Anti-Human Serum Albumin (RABBIT) Antibody - 600-401-033
Item No.:	600-401-033
Size:	1 mg
Applications:	Dot Blot, ELISA, WB, IF
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	Anti-Human Serum Albumin Antibody detects serum albumin which is the most abundant protein in human blood plasma. Serum albumin is produced in the liver and constitutes about half of the blood serum protein. It is soluble and monomeric, and is shown to transport hormones, fatty acids, and other compounds, buffers pH, and maintains osmotic pressure, among other functions. Albumin is synthesized in the liver as preproalbumin, which has an N-terminal peptide that is removed before the nascent protein is released from the rough endoplasmic reticulum. The product, proalbumin, is in turn cleaved in the Golgi vesicles to produce the secreted albumin. The reference range for albumin concentrations in blood is 3.4 to 5.4 g/dL. Serum Albimin has a molecular mass of 67 kDa. This antibody is suitable for researchers in cardiovascular research, Serum Protein Component research, as well as general research.
Synonyms:	rabbit anti-human serum albumin antibody, rabbit anti-HSA antibody, Analbuminemia antibody, rabbit anti-serum albumin antibody, rabbit anti-albumin antibody
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	ALB
Reactivity:	Human

Immunogen Type:	Native Protein
Immunogen:	Human Serum Albumin
Purity/Specificity:	Anti-Human Serum Albumin Antibody was prepared from monospecific antiserum by immunoaffinity chromatography using purified human serum albumin. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Rabbit Serum. Analysis by SDS-PAGE was used to determine that this preparation is substantially free of aggregates and shows a banding pattern consistent with purified Rabbit IgG.
Relevant Links:	• UniProtKB - P02768 • NCBI - NP_000468.1 • GeneID - 213

Application Details

Tested Applications:	Dot Blot, ELISA, WB
Suggested Applications:	IF (Based on references)
Application Note:	Anti-Human Serum Albumin Antibody has been tested by ELISA, dot blot, and western blot. This product is suitable for the detection of human serum albumin in blood and tissue samples. Antibody is suitable for western blotting to detect a single band of 67 kDa, the expected apparent molecular weight, and for use in ELISA. Researchers should determine optimal titers for applications that are not stated below.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:50,000 - 1:200,000
IF:	User Optimized
IHC:	1:1,000 - 1:5,000
WB:	1:2,000 - 1:10,000

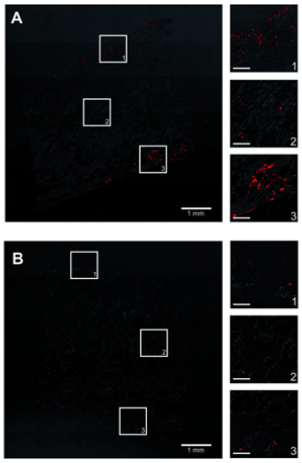
Formulation

Physical State:	Liquid (sterile filtered)
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:	None

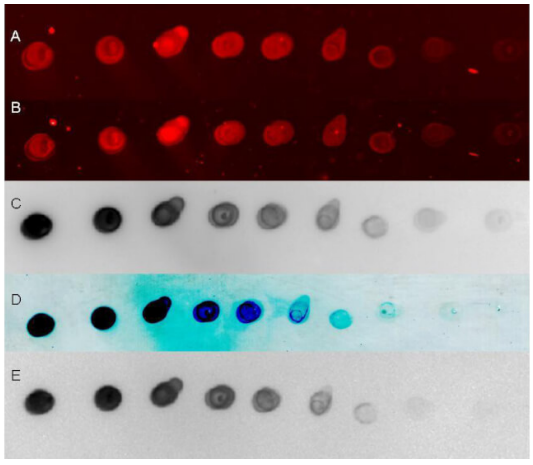
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. 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.

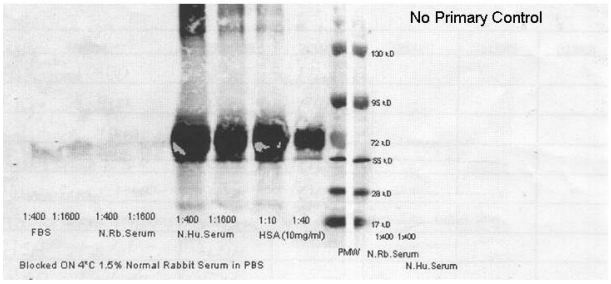
Images



Immunofluorescence Microscopy
PHH distribution within composite silk-collagen I scaffolds of small or large pore sizes. Silk scaffolds containing collagen I were fabricated with (A) small pores (73 ± 25 µm) or (B) large pores (235 ± 84 µm) and then PHHs were seeded into the scaffolds per the protocols described in methods. After 3 weeks, the cell-laden scaffolds were fixed, sectioned, and stained for intracellular albumin. Shown in both panels is a single section and magnified images from three different regions within the scaffold to show the distribution of PHH attachment. The scale bars in magnified images are 250 µm. Fig 2. PMID: 35515172



Dot Blot
Dot Blot of Rabbit IgG protein. Antigen: control Rabbit IgG protein. Load: 250ng starting total load in a serial 1:1 dilution. Primary antibody: Rabbit IgG protein. Secondary antibody: Rabbit IgG Antibody Peroxidase Conjugated and Rabbit IgG Antibody DyLight™ 649 Conjugated secondary antibodies at 1:20,000 for 45 min at RT. Block: MB-070 buffer overnight at 4°C. Blot was dried and imaged (A) on Biorad Versa Doc (30 sec, DyLight649), (B) LiCor Odyssey Reader (700 nm), (C) Rewetted incubated with Femtomax 110 reimaged using BioVersaDoc (for 60 sec), (D) Incubated with TMB substrate TMBM for 5 minutes and scanned, and (E) Rewetted for Chemiluminescence and imaged for 90 sec on the BioRad VersaDoc Imager.



Western Blot
Western Blot of human serum albumin. Lane 1: 1:400 of FBS. Lane 2: 1:1600 of FBS. Lane 3: 1:400 of normal rabbit serum. Lane 4: 1:1600 of normal rabbit serum. Lane 5: 1:400 of normal human serum. Lane 6: 1:1600 of normal human serum. Lane 7: 1:10 of human serum albumin (10mg/mL). Lane 8: 1:40 of human serum albumin (10mg/mL). Lane 9: molecular weight. Right Blot: Secondary only incubated for control. Primary antibody: human serum albumin at 1:400 for overnight at 4°C. Secondary antibody: Biotin conjugated rabbit anti human serum albumin with 10 mg/ml BSA added to stock was diluted 1:5000 in PBST for 2hrs at RT. DyLight 649 conjugated Streptavidin 1:50000 in PBST 1 hr RT was used as a secondary reagent. Block: 1.5 % rabbit serum overnight at 4°C.

References

- Kukla, DA et al. Assessing the compatibility of primary human hepatocyte culture within porous silk sponges. *Rsc Advances* (2022)
- Kukla DA. et. al. Primary Human Hepatocytes Maintain Long-term Functions in Porous Silk Scaffolds Containing Extracellular Matrix Proteins. *bioRxiv* (2020)

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