SANTA CRUZ BIOTECHNOLOGY, INC.

ALB (E-11): sc-271604

BACKGROUND

Serum albumin (ALB), the main protein in plasma, has a very good binding capacity for water, fatty acids, calcium, sodium, bilirubin, hormones, potassium and drugs. The primary function of ALB is to regulate the colloidal osmotic pressure of blood. 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 form of albumin. Mutations in the ALB gene may result in familial dysalbuminemic hyperthyroxinemia (FDH), a form of euthyroid hyperthyroxinemia that is due to increased affinity of ALB for T4. FDH is the most common cause of inherited euthyroid hyperthyroxinemia in Caucasian populations.

CHROMOSOMAL LOCATION

Genetic locus: ALB (human) mapping to 4q13.3.

SOURCE

ALB (E-11) is a mouse monoclonal antibody raised against amino acids 39-164 mapping near the N-terminus of serum albumin of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ALB (E-11) is available conjugated to agarose (sc-271604 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271604 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271604 PE), fluorescein (sc-271604 FITC), Alexa Fluor® 488 (sc-271604 AF488), Alexa Fluor® 546 (sc-271604 AF546), Alexa Fluor® 594 (sc-271604 AF594) or Alexa Fluor® 647 (sc-271604 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271604 AF680) or Alexa Fluor® 790 (sc-271604 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ALB (E-11) is recommended for detection of ALB of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ALB siRNA (h): sc-45606, ALB shRNA Plasmid (h): sc-45606-SH and ALB shRNA (h) Lentiviral Particles: sc-45606-V.

Molecular Weight of ALB: 66 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HeLa whole cell lysate: sc-2200 or human plasma extract: sc-364374.

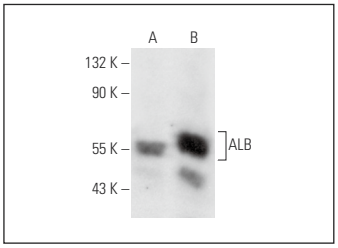
RESEARCH USE

For research use only, not for use in diagnostic procedures.

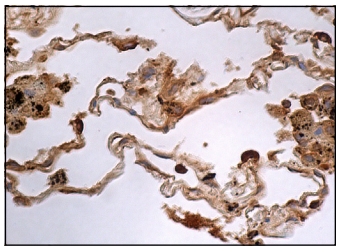
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



ALB (E-11): sc-271604. Western blot analysis of ALB expression in human PBL (**A**) and Hep G2 (**B**) whole cell lysates.



ALB (E-11): sc-271604. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lung tissue showing cytoplasmic staining of pneumocytes and macrophages.

SELECT PRODUCT CITATIONS

1. Guan, X., et al. 2016. Caveolin-1 is essential in the differentiation of human adipose-derived stem cells into hepatocyte-like cells via an MAPK pathway-dependent mechanism. Mol. Med. Rep. 13: 1487-1494.
2. Guo, L., et al. 2019. Protective effect of dihydromyricetin revents fatty liver through nuclear factor-κB/p53/B-cell lymphoma 2-associated X protein signaling pathways in a rat model. Mol. Med. Rep. 19: 1638-1644.
3. Sebak, A.A., et al. 2020. Distinct proteins in protein corona of nanoparticles represent a promising venue for endogenous targeting—part I: *in vitro* release and intracellular uptake perspective. Int. J. Nanomedicine 15: 8845-8862.
4. Ogoke, O., et al. 2021. Modeling liver organogenesis by recreating three-dimensional collective cell migration: a role for TGFβ pathway. Front. Bioeng. Biotechnol. 9: 621286.
5. Pan, Y., et al. 2022. Highly selective purification of plasma extracellular vesicles using titanium dioxide microparticles for depicting the metabolic signatures of diabetic retinopathy. Anal. Chem. 94: 14099-14108.
6. Ghodsi, M., et al. 2025. Development of an easy non-destructive particle isolation protocol for quality control of red blood cell concentrates. J. Extracell. Biol. 4: e70028.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.