

ALB (F-10): sc-271605

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 prealbumin, 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; Alb (mouse) mapping to 5 E1.

SOURCE

ALB (F-10) 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 IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ALB (F-10) is available conjugated to agarose (sc-271605 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271605 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271605 PE), fluorescein (sc-271605 FITC), Alexa Fluor[®] 488 (sc-271605 AF488), Alexa Fluor[®] 546 (sc-271605 AF546), Alexa Fluor[®] 594 (sc-271605 AF594) or Alexa Fluor[®] 647 (sc-271605 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-271605 AF680) or Alexa Fluor[®] 790 (sc-271605 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

ALB (F-10) is recommended for detection of ALB of mouse, rat and 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 siRNA (m): sc-45607, ALB shRNA Plasmid (h): sc-45606-SH, ALB shRNA Plasmid (m): sc-45607-SH, ALB shRNA (h) Lentiviral Particles: sc-45606-V and ALB shRNA (m) Lentiviral Particles: sc-45607-V.

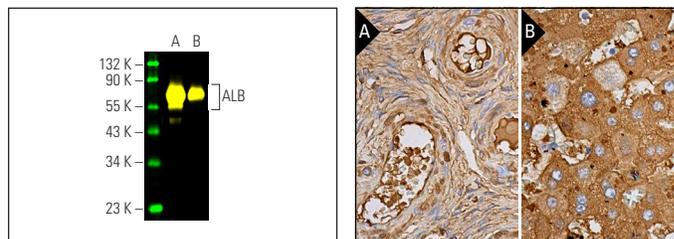
Molecular Weight of ALB: 66 kDa.

Positive Controls: human breast extract: sc-363753, human smooth muscle extract: sc-363778 or Hep G2 cell lysate: sc-2227.

STORAGE

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

DATA



ALB (F-10) Alexa Fluor[®] 488: sc-271605 AF488. Direct fluorescent western blot analysis of ALB expression in human breast (A) and human smooth muscle (B) tissue extracts. Blocked with UltraCruz[®] Blocking Reagent: sc-516214. Cruz Marker[™] Molecular Weight Standards detected with Cruz Marker MW Tag-Alexa Fluor[®] 680: sc-516730.

ALB (F-10): sc-271605. Immunoperoxidase staining of formalin fixed, paraffin-embedded human smooth muscle tissue showing cytoplasmic staining of smooth muscle cells and connective tissue and plasma staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes and bile duct cells and staining of plasma in blood vessels (B).

SELECT PRODUCT CITATIONS

- Gasimli, L., et al. 2014. Changes in glycosaminoglycan structure on differentiation of human embryonic stem cells towards mesoderm and endoderm lineages. *Biochim. Biophys. Acta* 1840: 1993-2003.
- Lee, B.H., et al. 2015. Modulation of Huh7.5 spheroid formation and functionality using modified PEG-based hydrogels of different stiffness. *PLoS ONE* 10: e0118123.
- Montalbano, M., et al. 2016. Modeling of hepatocytes proliferation isolated from proximal and distal zones from human hepatocellular carcinoma lesion. *PLoS ONE* 11: e0153613.
- Yu, J., et al. 2017. Netrin-1 ameliorates blood-brain barrier impairment secondary to ischemic stroke via the activation of PI3K pathway. *Front. Neurosci.* 11: 700.
- Qin, C.J., et al. 2018. Inhibition of dipeptidyl peptidase IV prevents high fat diet-induced liver cancer angiogenesis by downregulating chemokine ligand 2. *Cancer Lett.* 420: 26-37.
- Yu, Y., et al. 2020. Overexpression of long noncoding RNA CUDR promotes hepatic differentiation of human umbilical cord mesenchymal stem cells. *Mol. Med. Rep.* 21: 1051-1058.
- Arman, T., et al. 2021. Sub-chronic microcystin-LR renal toxicity in rats fed a high fat/high cholesterol diet. *Chemosphere* 269: 128773.
- Baig, M.T., et al. 2021. Vitamin E pretreated Wharton's jelly-derived mesenchymal stem cells attenuate CCl4-induced hepatocyte injury *in vitro* and liver fibrosis *in vivo*. *Biochem. Pharmacol.* 186: 114480.

RESEARCH USE

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