

ALB (M-13): sc-46289

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.

REFERENCES

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3. Bennett, P.H., et al. 1995. Screening and management of microalbuminuria in patients with diabetes mellitus: recommendations to the Scientific Advisory Board of the National Kidney Foundation from an ad hoc committee of the Council on Diabetes. *Am. J. Kidney Dis.* 25: 107-112.
4. Wachtell, K., et al. 2003. Albuminuria and cardiovascular risk in hypertensive patients with left ventricular hypertrophy: the LIFE study. *Ann. Intern. Med.* 139: 901-906.
5. Salmasi, A.M., et al. 2003. The degree of albuminuria is related to left ventricular hypertrophy in hypertensive diabetics and is associated with abnormal left ventricular filling: a pilot study. *Angiology* 54: 671-678.
6. Tavoulari, S., et al. 2004. The recombinant subdomain IIIB of human serum albumin displays activity of gonadotrophin surge-attenuating factor. *Hum. Reprod.* 19: 849-858.
7. Mitrogianni, Z., et al. 2004. Tyrosine nitration in plasma proteins from patients undergoing hemodialysis. *Am. J. Kidney Dis.* 44: 286-292.
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CHROMOSOMAL LOCATION

Genetic locus: ALB (human) mapping to 4q13.3; Alb1 (mouse) mapping to 5 E1.

SOURCE

ALB (M-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of serum albumin of mouse origin.

STORAGE

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

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-46289 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ALB (M-13) is recommended for detection of ALB of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, 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) 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.

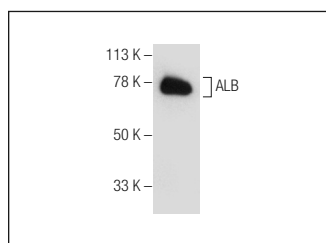
Molecular Weight of ALB: 66 kDa.

Positive Controls: Mouse liver extract: sc-2256, RAW 264.7 whole cell lysate: sc-2211 or mouse heart extract: sc-2254.

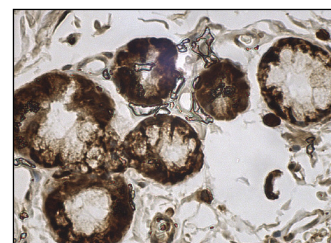
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ALB (M-13): sc-46289. Western blot analysis of ALB expression in mouse liver tissue extract.



ALB (M-13): sc-46289. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lung tissue showing cytoplasmic and nuclear staining of respiratory bronchioles.

RESEARCH USE

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