Anti-Human Albumin Antibody [PSH27-49] - BSA and Azide free (Capture)

HA725335

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	ELISA(Cap)
Clone number:	PSH27-49

Description: 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.

Immunogen: Recombinant protein within Human Albumin.

Positive control: Recombinant Human Albumin protein.

Subcellular location: Secreted.

Database links: SwissProt: P02768 Human

Recommended Dilutions:

ELISA(Cap) Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH27-50] to Human Albumin (Detecor) (HA725336) and Recombinant Human Albumin protein as the standard. The reference range value is 97.7-25,000 pg/mL.

Storage Buffer: 1*PBS (pH7.4).

Storage Instruction: Store at 2-8℃. Avoid freeze.

Purity: Protein A affinity purified.

Images

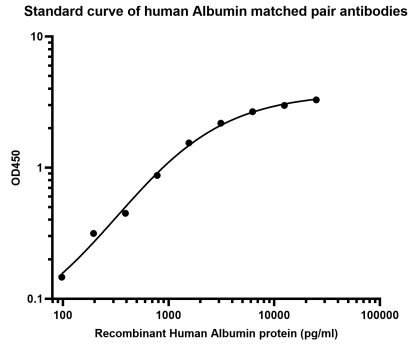

Fig1: Sandwich ELISA analysis of Human Albumin protein matched pair antibodies

Capture: HA725335, Human Albumin Rabbit mAb [PSH27-49]
Detector: HA725336, Human Albumin Rabbit mAb [PSH27-50]

Elisa assay was performed by coating wells of a 96-well plate with 100 µl per well of capture antibody (HA725335) diluted in carbonate/bicarbonate buffer, at a concentration of 2 µg/mL overnight at 4℃. Wells of the plate were washed, blocked with 150 µl 0.05% tween-20 1% BSA blocking buffer, and incubated with serial diluted Recombinant Human Albumin protein starting from 25,000 pg/mL to 0 pg/mL and detect antibody (HA725336, Biotin, 0.05 µg/mL) for 1 hour at 30℃ with shaking. Then the plate was washed and incubated with 100 µl per well of SA-HRP for 0.5 hour at 30℃ with shaking. Detection was performed using an Ultra TMB Substrate for 10 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.

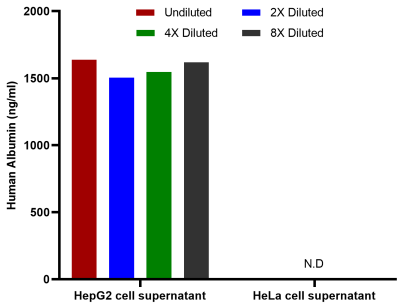

Fig2: Interpolated concentrations of native Albumin in HepG2 and HeLa cell supernatant.

Capture: HA725335, Human Albumin Rabbit mAb [PSH27-49]
Detector: HA725336, Human Albumin Rabbit mAb [PSH27-50]

The concentrations of native Albumin measured in duplicate and interpolated from the Albumin standard curve and corrected for sample dilution. Undiluted samples are HepG2 0.5%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Albumin concentration was determined to be 1,577.02 ng/mL in HepG2 cell culture supernatant. There was no detectable signal in HeLa cell culture supernatant.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Qu N et al. Albumin Nanoparticle-Based Drug Delivery Systems. Int J Nanomedicine. 2024 Jul
2. Spada A et al. The Uniqueness of Albumin as a Carrier in Nanodrug Delivery. Mol Pharm. 2021 May