SANTA CRUZ BIOTECHNOLOGY, INC.

apoA-I (B-10): sc-376818

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Apolipoproteins are protein components of plasma lipoproteins. The human apoA-I gene encodes a single chain, 243 amino acid protein which promotes cholesterol efflux from tissues to the liver for excretion. Apolipoprotein A-I is the major protein component of high density lipoprotein (HDL) in the plasma. It can function as a cofactor for lecithin cholesterolacyltransferase (LCAT), which is responsible for the formation of most plasma cholesteryl esters. The human apoA-II gene encodes the second most abundant protein of HDL particles, where it influences plasma levels of free fatty acids (FFA). The human apoA-IV gene encodes a 396 amino acid preprotein, which after proteolytic processing is secreted from the intestine in association with chylomicron particles. ApoA-IV is a potent activator of LCAT *in vitro*. The human apoA-V gene encodes a 366 amino acid protein that is believed to be an important determinant of plasma triglyceride levels.

CHROMOSOMAL LOCATION

Genetic locus: APOA1 (human) mapping to 11q23.3.

SOURCE

apoA-I (B-10) is a mouse monoclonal antibody raised against amino acids 1-267 representing full length apoA-I of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

apoA-I (B-10) is available conjugated to agarose (sc-376818 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376818 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376818 PE), fluorescein (sc-376818 FITC), Alexa Fluor® 488 (sc-376818 AF488), Alexa Fluor® 546 (sc-376818 AF546), Alexa Fluor® 594 (sc-376818 AF594) or Alexa Fluor® 647 (sc-376818 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376818 AF680) or Alexa Fluor® 790 (sc-376818 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

apoA-I (B-10) is recommended for detection of apoA-I 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 apoA-I siRNA (h): sc-41177, apoA-I shRNA Plasmid (h): sc-41177-SH and apoA-I shRNA (h) Lentiviral Particles: sc-41177-V.

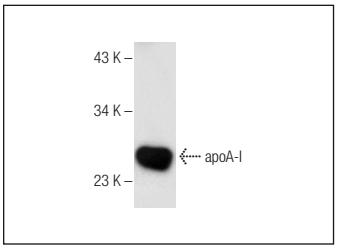
Molecular Weight of apoA-I: 28 kDa.

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

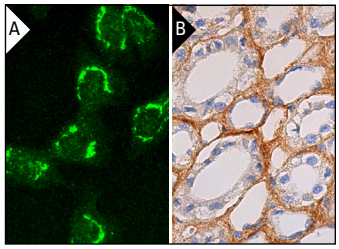
STORAGE

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

DATA



apoA-I (B-10): sc-376818. Western blot analysis of apoA-I in human plasma.



apoA-I (B-10): sc-376818. Immunofluorescence staining of formalin-fixed Hep G2 cells showing Golgi apparatus localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing extracellular staining in renal tubules (**B**).

SELECT PRODUCT CITATIONS

1. Manohar, M., et al. 2014. Alteration in endometrial proteins during early- and mid-secretory phases of the cycle in women with unexplained infertility. PLoS ONE 9: e111687.
2. Vergauwen, G., et al. 2017. Confounding factors of ultrafiltration and protein analysis in extracellular vesicle research. Sci. Rep. 7: 2704.
3. Pavani, K.C., et al. 2018. Isolation and characterization of functionally active extracellular vesicles from culture medium conditioned by bovine embryos *in vitro*. Int. J. Mol. Sci. 20: 38.
4. Srinivasan, S., et al. 2019. Small RNA sequencing across diverse biofluids identifies optimal methods for exRNA isolation. Cell 177: 446-462.e16.
5. Rahman, M.M., et al. 2019. Acidification effects on isolation of extracellular vesicles from bovine milk. PLoS ONE 14: e0222613.
6. Pavani, K.C., et al. 2020. The separation and characterization of extracellular vesicles from medium conditioned by bovine embryos. Int. J. Mol. Sci. 21: 2942.
7. Wu, C.Y., et al. 2020. Ectopic calcification and formation of mineralo-organic particles in arteries of diabetic subjects. Sci. Rep. 10: 8545.
8. D'Silva, A.M., et al. 2020. First trimester protein biomarkers for risk of spontaneous preterm birth: identifying a critical need for more rigorous approaches to biomarker identification and validation. Fetal Diagn. Ther. 47: 497-506.
9. Masood, A., et al. 2020. Plasma-based proteomics profiling of patients with hyperthyroidism after antithyroid treatment. Molecules 25: 2831.
10. Otahal, A., et al. 2021. Functional repertoire of EV-associated miRNA profiles after lipoprotein depletion via ultracentrifugation and size exclusion chromatography from autologous blood products. Sci. Rep. 11: 5823.

RESEARCH USE

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