SANTA CRUZ BIOTECHNOLOGY, INC.

apoA-V (A-12): sc-393722

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 lecithin-cholesterol acyltransferase (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.

REFERENCES

1. Vergnes, L., et al. 1997. The apolipoprotein A-I/C-III/A-IV gene cluster: apoC-III and apoA-IV expression is regulated by two common enhancers. Biochim. Biophys. Acta 1348: 299-310.
2. Qin, S., et al. 2000. Phospholipid transfer protein gene knock-out mice have low high density lipoprotein levels, due to hypercatabolism, and accumulate apoA-IV-rich lamellar lipoproteins. J. Lipid Res. 41: 269-276.
3. Fournier, N., et al. 2000. Human apoA-IV overexpression in transgenic mice induces cAMP-stimulated cholesterol efflux from J774 macrophages to whole serum. Arterioscler. Thromb. Vasc. Biol. 20: 1283-1292.

CHROMOSOMAL LOCATION

Genetic locus: APOA5 (human) mapping to 11q23.3; Apoa5 (mouse) mapping to 9 A5.2.

SOURCE

apoA-V (A-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 318-334 near the C-terminus of apoA-V 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.

apoA-V (A-12) is available conjugated to agarose (sc-393722 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-393722 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393722 PE), fluorescein (sc-393722 FITC), Alexa Fluor® 488 (sc-393722 AF488), Alexa Fluor® 546 (sc-393722 AF546), Alexa Fluor® 594 (sc-393722 AF594) or Alexa Fluor® 647 (sc-393722 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393722 AF680) or Alexa Fluor® 790 (sc-393722 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393722 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

apoA-V (A-12) is recommended for detection of mature apoA-V and apoA-V precursor 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for apoA-V siRNA (h): sc-44527, apoA-V siRNA (m): sc-44869, apoA-V shRNA Plasmid (h): sc-44527-SH, apoA-V shRNA Plasmid (m): sc-44869-SH, apoA-V shRNA (h) Lentiviral Particles: sc-44527-V and apoA-V shRNA (m) Lentiviral Particles: sc-44869-V.

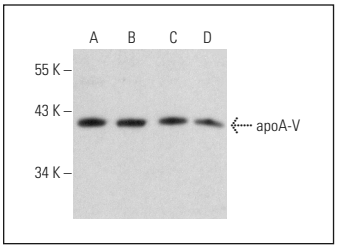
Molecular Weight of apoA-V: 41 kDa.

Positive Controls: apoA-V (m): 293T Lysate: sc-118482, c4 whole cell lysate: sc-364186 or Sol8 cell lysate: sc-2249.

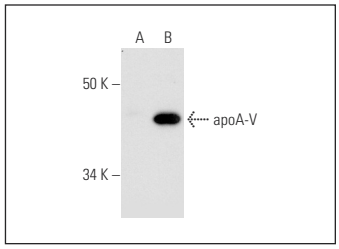
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



apoA-V (A-12): sc-393722. Western blot analysis of apoA-V expression in c4 (**A**), Sol8 (**B**), RIN-m5F (**C**) and C6 (**D**) whole cell lysates.



apoA-V (A-12): sc-393722. Western blot analysis of apoA-V expression in non-transfected: sc-117752 (**A**) and mouse apoA-V transfected: sc-118482 (**B**) 293T whole cell lysates.

STORAGE

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

RESEARCH USE

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