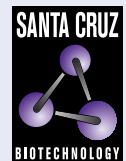


apoM (D-4): sc-398762



The Power to Question

BACKGROUND

Apolipoproteins are protein components of plasma lipoproteins. apoM (apolipoprotein M), also known as protein G3a, is a member of the Lipocalin family of proteins. apoM is exclusively expressed in kidney tubular epithelial cells and liver hepatocytes. Mature apoM retains its signal peptide, which acts as a hydrophobic anchor, and contains a structurally conserved eight stranded antiparallel β barrel which binds retinol and retinoic acid. apoM may play a key role in reverse cholesterol transport. It mainly associates with high density lipoprotein (HDL) and to a lesser extent with triglyceride-rich lipoprotein (TGRLP) and low-density lipoprotein (LDL). apoM is important for the pre β -HDL formation. Pre β -HDL is an important acceptor of peripheral cellular cholesterol. The concentration of apoM in plasma strongly correlates with total cholesterol. Low concentrations of apoM in plasma is associated with diabetes.

REFERENCES

- Zhang, X.Y., et al. 2003. Specific tissue expression and cellular localization of human apolipoprotein M as determined by *in situ* hybridization. *Acta Histochem.* 105: 67-72.
- Wolfrum, C., et al. 2005. Apolipoprotein M is required for pre β -HDL formation and cholesterol efflux to HDL and protects against atherosclerosis. *Nat. Med.* 11: 418-422.
- Christoffersen, C., et al. 2006. Isolation and characterization of human apolipoprotein M-containing lipoproteins. *J. Lipid Res.* 47: 1833-1843.
- Dahlbäck, B. and Nielsen, L.B. 2006. Apolipoprotein M—a novel player in high-density lipoprotein metabolism and atherosclerosis. *Curr. Opin. Lipidol.* 17: 291-295.
- Christoffersen, C., et al. 2006. Apolipoprotein M: progress in understanding its regulation and metabolic functions. *Scand. J. Clin. Lab. Invest.* 66: 631-637.
- Xu, X., et al. 2006. Effects of ischemia-reperfusion injury on apolipoprotein M expression in the liver. *Transplant. Proc.* 38: 2769-2773.
- Ahnström, J., et al. 2007. Hydrophobic ligand binding properties of the human lipocalin apolipoprotein M. *J. Lipid Res.* 48: 1754-1762.

CHROMOSOMAL LOCATION

Genetic locus: APOM (human) mapping to 6p21.33; Apom (mouse) mapping to 17 B1.

SOURCE

apoM (D-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 163-186 at the C-terminus of apoM of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-398762 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

apoM (D-4) is recommended for detection of apoM of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 apoM siRNA (h): sc-61978, apoM siRNA (m): sc-61979, apoM shRNA Plasmid (h): sc-61978-SH, apoM shRNA Plasmid (m): sc-61979-SH, apoM shRNA (h) Lentiviral Particles: sc-61978-V and apoM shRNA (m) Lentiviral Particles: sc-61979-V.

Molecular Weight of non-glycosylated apoM: 23 kDa.

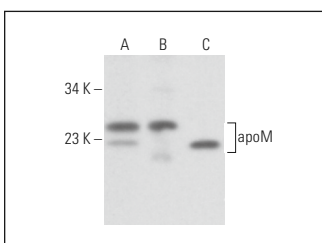
Molecular Weight of glycosylated apoM: 25 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, human liver extract: sc-363766 or rat liver extract: sc-2395.

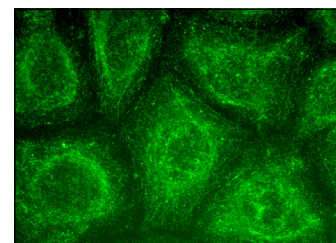
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



apoM (D-4): sc-398762. Western blot analysis of apoM expression in Hep G2 whole cell lysate (A) and human liver (B) and rat liver (C) tissue extracts.



apoM (D-4): sc-398762. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.