

# apoM (Y-19): sc-67810

## 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  $\beta$  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 $\beta$ -HDL formation. Pre $\beta$ -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 are associated with diabetes.

## REFERENCES

- Zhang, X.Y., Dong, X., Zheng, L., Luo, G.H., Liu, Y.H., Ekström, U., Nilsson-Ehle, P., Ye, Q. and Xu, N. 2003. Specific tissue expression and cellular localization of human apolipoprotein M as determined by *in situ* hybridization. *Acta Histochem.* 105: 67-72.
- Wolfrum, C., Poy, M.N. and Stoffel, M. 2005. Apolipoprotein M is required for pre $\beta$ -HDL formation and cholesterol efflux to HDL and protects against atherosclerosis. *Nat. Med.* 11: 418-422.
- Christoffersen, C., Nielsen, L.B., Axler, O., Andersson, A., Johnsen, A.H. and Dahlbäck, B. 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., Dahlbäck, B. and Nielsen, L.B. 2006. Apolipoprotein M: progress in understanding its regulation and metabolic functions. *Scand. J. Clin. Lab. Invest.* 66: 631-637.
- Xu, X., Ye, Q., Xu, N., He, X., Luo, G., Zhang, X., Zhu, J., Zhang, Y. and Nilsson-Ehle, P. 2006. Effects of ischemia-reperfusion injury on apolipoprotein M expression in the liver. *Transplant. Proc.* 38: 2769-2773.
- Ahnström, J., Faber, K., Axler, O. and Dahlbäck, B. 2007. Hydrophobic ligand binding properties of the human lipocalin apolipoprotein M. *J. Lipid Res.* 48: 1754-1762.
- Axler, O., Ahnström, J. and Dahlbäck, B. 2007. An ELISA for apolipoprotein M reveals a strong correlation to total cholesterol in human plasma. *J. Lipid Res.* 48: 1772-1780.
- Huang, X.S., Zhao, S.P., Hu, M. and Luo, Y.P. 2007. Apolipoprotein M likely extends its anti-atherogenesis via anti-inflammation. *Med. Hypotheses* 69: 136-140.

## CHROMOSOMAL LOCATION

Genetic locus: APOM (human) mapping to 6p21.33.

## SOURCE

apoM (Y-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of apoM of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-67810 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

apoM (Y-19) is recommended for detection of apoM of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

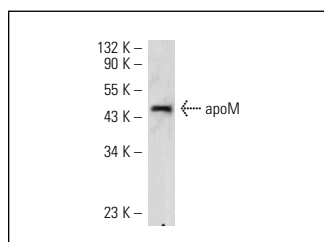
apoM (Y-19) is also recommended for detection of apoM in additional species, including equine, canine and bovine.

Suitable for use as control antibody for apoM siRNA (h): sc-61978, apoM shRNA Plasmid (h): sc-61978-SH and apoM shRNA (h) Lentiviral Particles: sc-61978-V.

Molecular Weight of non-glycosylated apoM: 23 kDa.

Molecular Weight of glycosylated apoM: 25 kDa.

## DATA



apoM (Y-19): sc-67810. Western blot analysis of human recombinant apoM.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.