

apoH (1D2): sc-58244

BACKGROUND

Human apolipoprotein H (apoH, also designated β 2-glycoprotein I, activated protein C binding protein or APC inhibitor) is a five-domain plasma membrane-adhesion protein that is rich in sialic acid linked to galactose or N-acetylglucosamine. ApoH has been implicated in a variety of physiological pathways, including blood coagulation and the immune response. ApoH is a cofactor for the binding of serum auto-antibodies from antiphospholipid syndrome, and is correlated with thrombosis, lupus erythematosus and recurrent fetal loss. In addition, apoH is also implicated in the clearance of apoptotic bodies from the circulation. The apoH gene is located on human chromosome 17q24.2. ApoH is synthesized by hepatocytes and is present in blood associated with plasma lipoproteins. ApoH displays a genetically determined structural polymorphism including three alleles (apoH*1, apoH*2 and apoH*3). ApoH can inhibit the translocation of cholesterol from extracellular pools to macrophages, which reduces the cellular accumulation of cholesterol, suggesting that apoH may play an important role in the prevention of atherosclerosis.

REFERENCES

1. Mehdi, H., et al. 1991. Nucleotide sequence and expression of the human gene encoding apolipoprotein H (β 2-glycoprotein I). *Gene* 108: 293-298.
2. Steinkasserer, A., et al. 1991. Complete nucleotide and deduced amino acid sequence of human β 2-glycoprotein I. *Biochem. J.* 277: 387-391.
3. Gambino, R., et al. 1997. Qualitative analysis of the carbohydrate composition of apolipoprotein H. *J. Protein Chem.* 16: 205-212.
4. Ruij, G., et al. 1997. Influence of apoH protein polymorphism on apoH levels in normal and diabetic subjects. *Clin. Genet.* 52: 167-172.
5. Bouma, B., et al. 1999. Adhesion mechanism of human β 2-glycoprotein I to phospholipids based on its crystal structure. *EMBO J.* 18: 5166-5174.
6. Schwarzenbacher, R., et al. 1999. Crystal structure of human β 2-glycoprotein I: implications for phospholipid binding and the antiphospholipid syndrome. *EMBO J.* 18: 6228-6239.
7. Okkels, H., et al. 1999. Structure of the human β 2-glycoprotein I (apolipoprotein H) gene. *Eur. J. Biochem.* 259: 435-440.
8. Lin, K.Y., et al. 2001. Evidence for inhibition of low density lipoprotein oxidation and cholesterol accumulation by apolipoprotein H (β 2-glycoprotein I). *Life Sci.* 69: 707-719.

CHROMOSOMAL LOCATION

Genetic locus: APOH (human) mapping to 17q24.2.

SOURCE

apoH (1D2) is a mouse monoclonal antibody raised against full length apoH of human origin.

PRODUCT

Each vial contains 1.0 ml culture supernatant containing IgG₁ with < 0.1% sodium azide.

APPLICATIONS

apoH (1D2) is recommended for detection of apoH of human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:10-1:200), immunofluorescence (starting dilution to be determined by researcher, dilution range 1:10-1:200) and solid phase ELISA (starting dilution to be determined by researcher, dilution range 1:10-1:200).

Suitable for use as control antibody for apoH siRNA (h): sc-72518, apoH shRNA Plasmid (h): sc-72518-SH and apoH shRNA (h) Lentiviral Particles: sc-72518-V.

Molecular Weight of apoH: 38 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, U-937 cell lysate: sc-2239 or HL-60 whole cell lysate: sc-2209.

SELECT PRODUCT CITATIONS

1. Spadaro, G., et al. 2011. Proteomic analysis of sera from common variable immunodeficiency patients undergoing replacement intravenous immunoglobulin therapy. *J. Biomed. Biotechnol.* 2011: 706746.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

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.