SANTA CRUZ BIOTECHNOLOGY, INC.

apoH (N-13): sc-19179

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 a to galactose or N-acetylgalactosamine. 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. Ruiu, 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; Apoh (mouse) mapping to 11 E1.

SOURCE

apoH (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of apoH of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-19179 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

apoH (N-13) is recommended for detection of apoH of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

apoH (N-13) is also recommended for detection of apoH in additional species, including porcine.

Suitable for use as control antibody for apoH siRNA (h): sc-72518, apoH siRNA (m): sc-72519, apoH shRNA Plasmid (h): sc-72518-SH, apoH shRNA Plasmid (m): sc-72519-SH, apoH shRNA (h) Lentiviral Particles: sc-72518-V and apoH shRNA (m) Lentiviral Particles: sc-72519-V.

Molecular Weight of apoH: 38 kDa.

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

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Côté, M., et al. 2011. Apolipoprotein A-I, A-II, and H mRNA and protein accumulation sites in the developing lung in late gestation. BMC Res. Notes 4: 235.

RESEARCH USE

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