

BACKGROUND

Apolipoproteins are a family of fatty-acid binding proteins that transport fat through the bloodstream in the form of lipoproteins. ApoO functions to promote the transport of cholesterol from macrophage cells and may be involved in regulatory mechanisms that protect lipid accumulation within the heart. ApoO is present in high density lipoproteins (HDLs) and low density lipoproteins (LDLs), and is secreted by an MTP (microsomal triglyceride transfer protein)-dependent mechanism. ApoOL (apolipoprotein O-like), also known as FAM121A, is a 268 amino acid secreted protein belonging to the apolipoprotein O family and may be involved in cholesterol transport. ApoOL is encoded by a gene located on human chromosome X, which contains nearly 153 million base pairs and houses over 1,000 genes.

REFERENCES

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2. van der Vliet, H.N., et al. 2001. Apolipoprotein A-V: a novel apolipoprotein associated with an early phase of liver regeneration. *J. Biol. Chem.* 276: 44512-44520.
3. Offer, T., et al. 2002. Nitroxides inhibit peroxy radical-mediated DNA scission and enzyme inactivation. *Free Radic. Biol. Med.* 32: 872-881.
4. Nielsen, L.B. 2002. Lipoprotein production by the heart: a novel pathway of triglyceride export from cardiomyocytes. *Scand. J. Clin. Lab. Invest. Suppl.* 237: 35-40.
5. Clark, H.F., et al. 2003. The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane proteins: a bioinformatics assessment. *Genome Res.* 13: 2265-2270.
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CHROMOSOMAL LOCATION

Genetic locus: APOOL (human) mapping to Xq21.1.

SOURCE

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

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-131397 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

apoOL (K-13) is recommended for detection of apoOL of human origin by Western Blotting (starting dilution 1:200, 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).

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

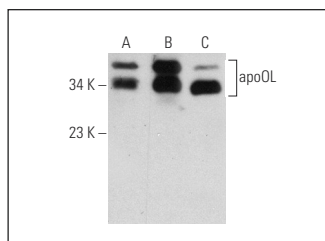
Suitable for use as control antibody for apoOL siRNA (h): sc-91074, apoOL shRNA Plasmid (h): sc-91074-SH and apoOL shRNA (h) Lentiviral Particles: sc-91074-V.

Molecular Weight of apoOL: 29 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, T24 cell lysate: sc-2292 or PC-3 cell lysate: sc-2220.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA

apoOL (K-13): sc-131397. Western blot analysis of apoOL expression in HeLa (A), T24 (B) and PC-3 (C) whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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