

Angptl4 (K-19): sc-32184

BACKGROUND

Angiopietin-like 4 (Angptl4), also designated hepatic fibrinogen/angiopoietin-related protein (HFARP), is a secreted protein which, through an endocrine action, exerts a protective function over endothelial cells. The Angptl4 gene has hypoxia-induced expression in endothelial cells. Angptl4 has a highly hydrophobic region at the N-terminus that is typical of a secretory signal sequence and one consensus glycosylation site. Angptl4 is considered a marker of renal cell carcinoma (other renal tumor cells do not produce Angptl4 mRNA). Evidence suggests that Angptl4 is a blood-borne hormone directly involved in regulating glucose homeostasis, lipid metabolism and Insulin sensitivity. Angptl4 exerts distinct effects on glucose and lipid metabolism, and may be useful for the treatment of diabetes.

REFERENCES

- Kim, I., et al. 2000. Hepatic expression, synthesis and secretion of a novel fibrinogen/angiopoietin-related protein that prevents endothelial cell apoptosis. *Biochem. J.* 346: 603-610.
- Li, K.Q., et al. 2004. Anti-tumor effect of recombinant retroviral vector-mediated human Angptl4 gene transfection. *Chin. Med. J.* 117: 1364-1369.
- Ge, H., et al. 2005. Differential regulation and properties of angiopoietin-like proteins 3 and 4. *J. Lipid Res.* 46: 1484-1490.
- Yu, X., et al. 2005. Inhibition of cardiac lipoprotein utilization by transgenic overexpression of Angptl4 in the heart. *Proc. Natl. Acad. Sci. USA* 102: 1767-1772.
- Xu, A., et al. 2005. Angiopietin-like protein 4 decreases blood glucose and improves glucose tolerance but induces hyperlipidemia and hepatic steatosis in mice. *Proc. Natl. Acad. Sci. USA* 102: 6086-6091.
- SWISS-PROT/TrEMBL (Q9BY76). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

Genetic locus: Angptl4 (mouse) mapping to 17 B1.

SOURCE

Angptl4 (K-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Angptl4 of mouse 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-32184 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

Angptl4 (K-19) is recommended for detection of Angptl4 of mouse and rat 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).

Suitable for use as control antibody for Angptl4 siRNA (m): sc-44665, Angptl4 shRNA Plasmid (m): sc-44665-SH and Angptl4 shRNA (m) Lentiviral Particles: sc-44665-V.

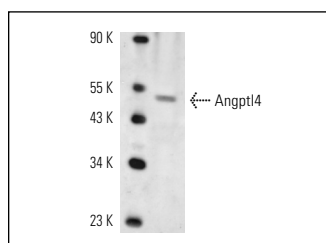
Molecular Weight of Angptl4: 50 kDa.

Positive Controls: Mouse liver extract: sc-2256 or c4 whole cell lysate.

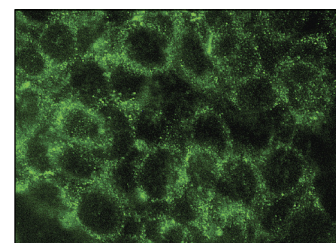
RECOMMENDED SECONDARY REAGENTS

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



Angptl4 (K-19): sc-32184. Western blot analysis of Angptl4 expression in c4 whole cell lysate.



Angptl4 (K-19): sc-32184. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing membrane and cytoplasmic localization.

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.