

Angptl3 (M-183): sc-68916

BACKGROUND

Angiopoietin-like protein 3 (Angptl3) functions as a potent lipoprotein lipase inhibitor and is an important component of plasma triglyceride homeostasis. Angptl3 also plays a role in adipose formation and angiogenesis through its interaction with integrin $\alpha\beta 3$. It is secreted by the liver and is functionally defined by the C-terminal fibrinogen (FBN)-like domain and an N-terminal coiled-coil domain. Angptl3 regulates circulating triglyceride levels during different nutritional states thereby mediating the feeding/fasting cycle. A deficiency of Angptl3 results in abnormally low lipid levels, and a repression of the protein may be protective against atherosclerosis. Angptl3 may also play an important role in hyperlipidemia in diabetes.

REFERENCES

1. Koishi, R., et al. 2002. Angptl3 regulates lipid metabolism in mice. *Nat. Genet.* 30: 151-157.
2. Shimizugawa, T., et al. 2002. Angptl3 decrease of lipoprotein lipase. *J. Biol. Chem.* 277: 33742-3748.
3. Ono, M., et al. 2003. Protein region important for regulation of lipid metabolism in angiopoietin-like 3 Angptl3: Angptl3 is cleaved and activated *in vivo*. *J. Biol. Chem.* 278: 41804-41809.
4. Inukai, K., et al. 2004. Angptl3 is increased in both Insulin-deficient and -resistant diabetic states. *Biochem. Biophys. Res. Commun.* 317: 1075-1079.
5. Shimizugawa, T., et al. 2004. Angptl3 (angiopoietin-like 3). *Nippon Rinsho* 62: 1170-1174.
6. Köster, A., et al. 2005. Transgenic angiopoietin-like Angptl4 overexpression and targeted disruption of Angptl4 and Angptl3: regulation of triglyceride metabolism. *Endocrinology* 146: 4943-4950.
7. Fugier, C., et al. 2006. The lipoprotein lipase inhibitor Angptl3 is negatively regulated by thyroid hormone. *J. Biol. Chem.* 281: 11553-11559.
8. Fujimoto, K., et al. 2006. Angptl3-null mice show low plasma lipid concentrations by enhanced lipoprotein lipase activity. *Exp. Anim.* 55: 27-34.
9. Feng, S.Q., et al. 2006. Cloning, chromosome mapping and expression characteristics of porcine ANGPTL3 and -4. *Cytogenet. Genome Res.* 114: 44-49.

CHROMOSOMAL LOCATION

Genetic locus: ANGPTL3 (human) mapping to 1p31.3; Angptl3 (mouse) mapping to 4 C6.

SOURCE

Angptl3 (M-183) is a rabbit polyclonal antibody raised against amino acids 58-240 mapping within an internal region of Angptl3 of mouse origin.

PRODUCT

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

APPLICATIONS

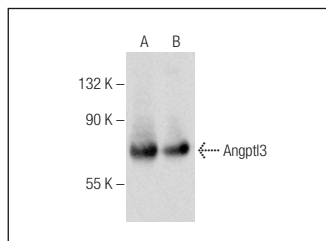
Angptl3 (M-183) is recommended for detection of Angptl3 of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 Angptl3 siRNA (h): sc-61911, Angptl3 siRNA (m): sc-61912, Angptl3 shRNA Plasmid (h): sc-61911-SH, Angptl3 shRNA Plasmid (m): sc-61912-SH, Angptl3 shRNA (h) Lentiviral Particles: sc-61911-V and Angptl3 shRNA (m) Lentiviral Particles: sc-61912-V.

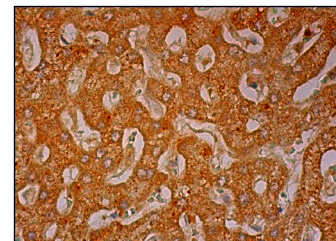
Molecular Weight of Angptl3: 63 kDa.

Positive Controls: mouse liver extract: sc-2256 or rat liver extract: sc-2395.

DATA



Angptl3 (M-183): sc-68916. Western blot analysis of Angptl3 expression in mouse liver (A) and rat liver (B) tissue extracts.



Angptl3 (M-183): sc-68916. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes.

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 or our catalog for detailed protocols and support products.



Try **Angptl3 (G-5): sc-365887**, our highly recommended monoclonal alternative to Angptl3 (M-183).