SANTA CRUZ BIOTECHNOLOGY, INC.

Angptl4 (C-7): sc-373762

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Angiopoietin-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.

CHROMOSOMAL LOCATION

Genetic locus: ANGPTL4 (human) mapping to 19p13.2.

SOURCE

Angptl4 (C-7) is a mouse monoclonal antibody raised against amino acids 51-250 mapping near the N-terminus of Angptl4 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Angptl4 (C-7) is available conjugated to agarose (sc-373762 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-373762 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373762 PE), fluorescein (sc-373762 FITC), Alexa Fluor® 488 (sc-373762 AF488), Alexa Fluor® 546 (sc-373762 AF546), Alexa Fluor® 594 (sc-373762 AF594) or Alexa Fluor® 647 (sc-373762 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-373762 AF680) or Alexa Fluor® 790 (sc-373762 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

Angptl4 (C-7) is recommended for detection of Angptl4 of human origin by Western Blotting (starting dilution 1:100, 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 (h): sc-44664, Angptl4 shRNA Plasmid (h): sc-44664-SH and Angptl4 shRNA (h) Lentiviral Particles: sc-44664-V.

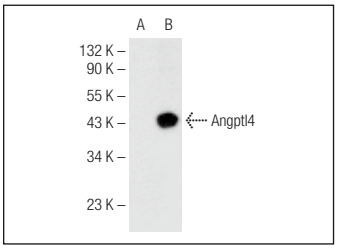
Molecular Weight of Angptl4: 50 kDa.

Positive Controls: human Angptl4 transfected 293T whole cell lysate.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Angptl4 (C-7): sc-373762. Western blot analysis of Angptl4 expression in non-transfected (**A**) and human Angptl4 transfected (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Delcourt, N., et al. 2015. Targeted identification of sialoglycoproteins in hypoxic endothelial cells and validation in zebrafish reveal roles for proteins in angiogenesis. J. Biol. Chem. 290: 3405-3417.
2. Ruiz-Ojeda, F.J., et al. 2019. Effects of X-chromosome Tenomodulin genetic variants on obesity in a children's cohort and implications of the gene in adipocyte metabolism. Sci. Rep. 9: 3979.
3. Wu, S.K., et al. 2023. The variant senescence-associated secretory phenotype induced by centrosome amplification constitutes a pathway that activates hypoxia-inducible factor-1α. Aging Cell 22: e13766.
4. Park, S.R., et al. 2024. Exploring memory function beyond immune cells: Angptl4-mediated memory functions in tissue resident stem cells. Adv. Sci. 11: e2307545.
5. Min, E.K., et al. 2024. Identification of memory mechanism in tissue-resident stem cells via Angptl4 beyond immune cells upon viral antigen exposure. Mol. Ther. 32: 3042-3058.

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.