

Angptl2 (H-2): sc-393747

BACKGROUND

Angptl2 (angiopoietin-like 2), also known as angiopoietin-related protein 2 (ARP2), is a member of the Fibrinogen superfamily. It is expressed in adult heart, stomach, spleen and small intestine tissues. Angptl2 consists of an N-terminus with a conserved coiled-coil domain, two glycosylation sites and a C-terminus with a conserved Fibrinogen-like domain. It is a secreted protein and shares 59% sequence identity with Angptl1. In endothelial cells, Angptl2 does not function as a growth factor, instead it functions to induce sprouting and regulate angiogenesis. This activity is thought to be exerted via the interaction of Angptl2 with an endothelial cell receptor and may involve paracrine and autocrine signalling. The loss of Angptl2 results in impaired vascular development. In addition, upregulation of Angptl2 may play a significant role in the pathogenesis of diabetic glomerulopathy and tumor growth and survival.

REFERENCES

- Kim, I., et al. 1999. Molecular cloning, expression, and characterization of angiopoietin-related protein. *Angiopoietin-related protein induces endothelial cell sprouting. J. Biol. Chem.* 274: 26523-26528.
- 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.
- Stassar, M.J., et al. 2001. Identification of human renal cell carcinoma associated genes by suppression subtractive hybridization. *Br. J. Cancer* 85: 1372-1382.
- Ito, Y., et al. 2003. Inhibition of angiogenesis and vascular leakiness by angiopoietin-related protein 4. *Cancer Res.* 63: 6651-6657.

CHROMOSOMAL LOCATION

Genetic locus: ANGPTL2 (human) mapping to 9q33.3; Angptl2 (mouse) mapping to 2 B.

SOURCE

Angptl2 (H-2) is a mouse monoclonal antibody raised against amino acids 158-254 mapping within an internal region of Angptl2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Angptl2 (H-2) is available conjugated to agarose (sc-393747 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393747 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393747 PE), fluorescein (sc-393747 FITC), Alexa Fluor® 488 (sc-393747 AF488), Alexa Fluor® 546 (sc-393747 AF546), Alexa Fluor® 594 (sc-393747 AF594) or Alexa Fluor® 647 (sc-393747 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393747 AF680) or Alexa Fluor® 790 (sc-393747 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

Angptl2 (H-2) is recommended for detection of Angptl2 of mouse, rat and 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 Angptl2 siRNA (h): sc-72351, Angptl2 siRNA (m): sc-72352, Angptl2 shRNA Plasmid (h): sc-72351-SH, Angptl2 shRNA Plasmid (m): sc-72352-SH, Angptl2 shRNA (h) Lentiviral Particles: sc-72351-V and Angptl2 shRNA (m) Lentiviral Particles: sc-72352-V.

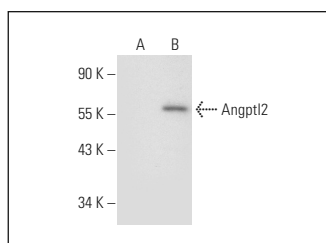
Molecular Weight of Angptl2: 57 kDa.

Positive Controls: Angptl2 (h2): 293T Lysate: sc-371477.

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



Angptl2 (H-2): sc-393747. Western blot analysis of Angptl2 expression in non-transfected: sc-117752 (A) and human Angptl2 transfected: sc-371477 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Chen, L., et al. 2021. Electroacupuncture reduces oocyte number and maintains vascular barrier against ovarian hyperstimulation syndrome by regulating CD200. *Front. Cell Dev. Biol.* 9: 648578.

RESEARCH USE

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

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA