

# Angptl1 (A-3): sc-271841

## BACKGROUND

Angptl1 (angiopoietin-like 1), also known as angioarrestin, ARP1, ANGPT3 or previously known as angiopoietin 3 (ANG3), is a member of the angiopoietin-like family. It is highly expressed in adult tissues, particularly adrenal gland, thyroid, placenta and small intestine. Angptl1 exists as a disulfide-linked dimer and shares 45.1% identity with Ang-1 and 59% identity with Angptl2. Angptl1 consists of an N-terminus with a coiled-coil domain, potential glycosylation sites and a C-terminus with a fibrinogen-like domain. It is a secreted protein but does not function as a growth factor in endothelial cells. Angptl1 plays a distinct role in the regulation of angiogenesis; inhibiting proliferation, migration, tube formation and endothelial cell adhesion. To exert this inhibitory activity, Angptl1 is speculated to interact with a receptor on endothelial cells. In a wide variety of tumor tissues, Angptl1 expression is down-regulated suggesting that a major function of this protein involves its antiangiogenic properties.

## 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. 1999. Molecular cloning and characterization of a novel angiopoietin family protein, angiopoietin-3. *FEBS Lett.* 443: 353-356.
- Dhanabal, M., et al. 2002. Angioarrestin: an antiangiogenic protein with tumor-inhibiting properties. *Cancer Res.* 62: 3834-3841.

## CHROMOSOMAL LOCATION

Genetic locus: ANGPTL1 (human) mapping to 1q25.2; Angptl1 (mouse) mapping to 1 H1.

## SOURCE

Angptl1 (A-3) is a mouse monoclonal antibody raised against amino acids 156-315 mapping within an internal region of Angptl1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Angptl1 (A-3) is available conjugated to agarose (sc-271841 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271841 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271841 PE), fluorescein (sc-271841 FITC), Alexa Fluor<sup>®</sup> 488 (sc-271841 AF488), Alexa Fluor<sup>®</sup> 546 (sc-271841 AF546), Alexa Fluor<sup>®</sup> 594 (sc-271841 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-271841 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-271841 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-271841 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## STORAGE

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

## APPLICATIONS

Angptl1 (A-3) is recommended for detection of Angptl1 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 Angptl1 siRNA (h): sc-88171, Angptl1 siRNA (m): sc-141061, Angptl1 shRNA Plasmid (h): sc-88171-SH, Angptl1 shRNA Plasmid (m): sc-141061-SH, Angptl1 shRNA (h) Lentiviral Particles: sc-88171-V and Angptl1 shRNA (m) Lentiviral Particles: sc-141061-V.

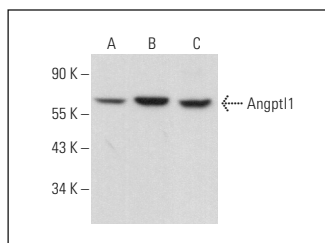
Molecular Weight of Angptl1: 57 kDa.

Positive Controls: Angptl1 (h): 293T Lysate: sc-116280, Jurkat whole cell lysate: sc-2204 or 3T3-L1 cell lysate: sc-2243.

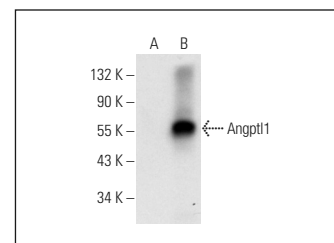
## RECOMMENDED SUPPORT REAGENTS

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<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



Angptl1 (A-3): sc-271841. Western blot analysis of Angptl1 expression in Jurkat (A), Hep G2 (B) and 3T3-L1 (C) whole cell lysates.



Angptl1 (A-3): sc-271841. Western blot analysis of Angptl1 expression in non-transfected: sc-117752 (A) and human Angptl1 transfected: sc-116280 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

- Fan, H., et al. 2019. Angiopoietin-like protein 1 inhibits epithelial to mesenchymal transition in colorectal cancer cells via suppress SLUG expression. *Cytotechnology* 71: 35-44.
- 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.