

Angptl1 (H-160): sc-135115

BACKGROUND

Angptl1 (angiopoietin-like 1), also known as angioarrestin, ARP1 or ANGPT3 and 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 downregulated 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.
- Lee, H.J., et al. 2004. Biological characterization of angiopoietin-3 and angiopoietin-4. *FASEB J.* 18: 1200-1208.
- Kubota, Y., et al. 2005. Cooperative interaction of angiopoietin-like proteins 1 and 2 in zebrafish vascular development. *Proc. Natl. Acad. Sci. USA* 102: 13502-13507.
- Bouïs, D., et al. 2005. A review on pro- and anti-angiogenic factors as targets of clinical intervention. *Pharmacol. Res.* 53: 89-103.
- Kubota, Y., et al. 2005. Isolation and expression patterns of genes for three angiopoietin-like proteins, Angptl1,2 and 6 in zebrafish. *Gene Expr. Patterns* 5: 679-685.
- Oike, Y., et al. 2005. Angiopoietin-like proteins: potential new targets for metabolic syndrome therapy. *Trends Mol. Med.* 11: 473-479.

CHROMOSOMAL LOCATION

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

SOURCE

Angptl1 (H-160) is a rabbit polyclonal antibody raised against amino acids 156-315 mapping within an internal region of Angptl1 of human origin.

PRODUCT

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

APPLICATIONS

Angptl1 (H-160) is recommended for detection of Angptl1 of mouse, rat and human 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).

Angptl1 (H-160) is also recommended for detection of Angptl1 in additional species, including equine, canine, bovine and porcine.

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.

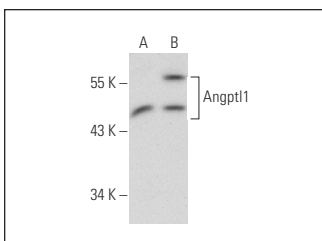
Molecular Weight of Angptl1: 57 kDa.

Positive Controls: Angptl1 (h): 293T Lysate: sc-116280.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Angptl1 (H-160): sc-135115. Western blot analysis of Angptl1 expression in non-transfected: sc-117752 (A) and human Angptl1 transfected: sc-116280 (B). 293T whole cell lysates.

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.