

Vasohibin-1 (E-17): sc-49777

BACKGROUND

Angiogenesis is mainly regulated by the balance of several different pro-angiogenic stimulators, such as vascular endothelial growth factor (VEGF) and a diverse group of endogenous inhibitors that are extrinsic to endothelial cells. Vasohibin is a secreted protein that is induced by a specific, self-regulating, feedback inhibition response to inhibit angiogenesis in an auto-crine manner. It inhibits proliferation, migration and network formation by endothelial cells. This function is specific for endothelial cells as it does not affect migration in other cell types. Vasohibin is primarily expressed in endothelial of the brain and placental tissues with highest abundance in fetal organs. VEGF and fibroblast growth factor 2 upregulate the expression of Vasohibin. *In vitro*, Vasohibin does not affect cancer cell proliferation, but does inhibit tumor growth and angiogenesis.

REFERENCES

1. Kerbel, R.S. 2004. Vasohibin: the feedback on a new inhibitor of angiogenesis. *J. Clin. Invest.* 114: 884-886.
2. Watanabe, K., Hasegawa, Y., Yamashita, H., Shimizu, K., Ding, Y., Abe, M., Ohta, H., Imagawa, K., Hojo, K., Maki, H., Sonoda, H. and Sato, Y. 2004. Vasohibin as an endothelium-derived negative feedback regulator of angiogenesis. *J. Clin. Invest.* 114: 898-907.
3. Shimizu, K., Watanabe, K., Yamashita, H., Abe, M., Yoshimatsu, H., Ohta, H., Sonoda, H. and Sato, Y. 2005. Gene regulation of a novel angiogenesis inhibitor, Vasohibin, in endothelial cells. *Biochem. Biophys. Res. Commun.* 327: 700-706.
4. Katoh, Y. and Katoh, M. 2006. Comparative integromics on angiopoietin family members. *Int. J. Mol. Med.* 17: 1145-1149.
5. Sato, Y. 2006. A novel angiogenesis inhibitor Vasohibin. *Seikagaku* 78: 763-767.
6. Shen, J., Yang, X., Xiao, W.H., Hackett, S.F., Sato, Y. and Campochiaro, P.A. 2006. Vasohibin is upregulated by VEGF in the retina and suppresses VEGF receptor 2 and retinal neovascularization. *FASEB J.* 20: 723-725.
7. Shibuya, T., Watanabe, K., Yamashita, H., Shimizu, K., Miyashita, H., Abe, M., Moriya, T., Ohta, H., Sonoda, H., Shimosegawa, T., Tabayashi, K. and Sato, Y. 2006. Isolation and characterization of Vasohibin-2 as a homologue of VEGF-inducible endothelium-derived angiogenesis inhibitor Vasohibin. *Arterioscler Thromb. Vasc. Biol.* 26: 1051-1057.
8. Sonoda, H., Ohta, H., Watanabe, K., Yamashita, H., Kimura, H. and Sato, Y. 2006. Multiple processing forms and their biological activities of a novel angiogenesis inhibitor Vasohibin. *Biochem. Biophys. Res. Commun.* 342: 640-646.

CHROMOSOMAL LOCATION

Genetic locus: VASH1 (human) mapping to 14q24.3; Vash1 (mouse) mapping to 12 D2.

SOURCE

Vasohibin-1 (E-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Vasohibin 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.

Blocking peptide available for competition studies, sc-49777 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

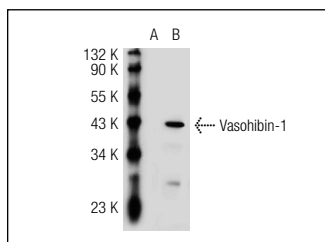
APPLICATIONS

Vasohibin-1 (E-17) is recommended for detection of Vasohibin 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).

Suitable for use as control antibody for Vasohibin-1 siRNA (h): sc-61776, Vasohibin-1 siRNA (m): sc-61777, Vasohibin-1 shRNA Plasmid (h): sc-61776-SH, Vasohibin-1 shRNA Plasmid (m): sc-61777-SH, Vasohibin-1 shRNA (h) Lentiviral Particles: sc-61776-V and Vasohibin-1 shRNA (m) Lentiviral Particles: sc-61777-V.

Molecular Weight of Vasohibin-1: 44 kDa.

DATA



Vasohibin-1 (E-17): sc-49777. Western blot analysis of Vasohibin expression in non-transfected: sc-117752 (A) and human Vasohibin-1 transfected: sc-116318 (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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **Vasohibin-1 (C-6): sc-365541**, our highly recommended monoclonal alternative to Vasohibin-1 (E-17).