

Vasohibin-1 (C-6): sc-365541

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-1 is a secreted protein that is induced by a specific, self-regulating, feedback inhibition response to inhibit angiogenesis in an autocrine 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-1 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-1. *In vitro*, Vasohibin-1 does not affect cancer cell proliferation, but does inhibit tumor growth and angiogenesis.

CHROMOSOMAL LOCATION

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

SOURCE

Vasohibin-1 (C-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 43-71 near the N-terminus of Vasohibin of human origin.

PRODUCT

Each vial contains 200 µg IgG₃ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-365541 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

Vasohibin-1 (C-6) is recommended for detection of Vasohibin-1 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), immunohistochemistry (including paraffin-embedded sections) (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.

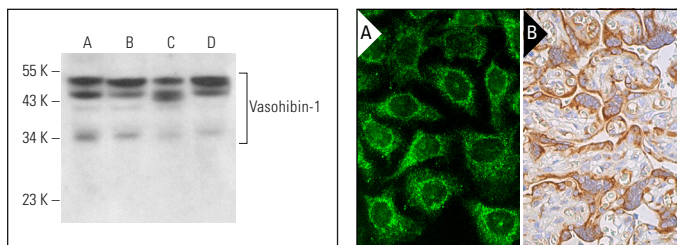
Molecular Weight of Vasohibin-1: 44 kDa.

Positive Controls: ECV304 cell lysate: sc-2269, C6 whole cell lysate: sc-364373 or RAW 264.7 whole cell lysate: sc-2211.

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Vasohibin-1 (C-6): sc-365541. Western blot analysis of Vasohibin-1 expression in C6 (A), HUV-EC-C (B), RAW 264.7 (C) and ECV304 (D) whole cell lysates.

Vasohibin-1 (C-6): sc-365541. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of trophoblastic cells (B).

SELECT PRODUCT CITATIONS

- Shen, Z., et al. 2013. Vasohibin-1 expression is regulated by transforming growth factor-β/bone morphogenic protein signaling pathway between tumor-associated macrophages and pancreatic cancer cells. *J. Interferon Cytokine Res.* 33: 428-433.
- Shen, Z., et al. 2016. The effect of Vasohibin-1 expression and tumor-associated macrophages on the angiogenesis *in vitro* and *in vivo*. *Tumour Biol.* 37: 7267-7276.
- Zhang, B., et al. 2017. The expression of Vasohibin-1 and its prognostic significance in bladder cancer. *Exp. Ther. Med.* 14: 3477-3484.
- Li, L., et al. 2020. VEZF1-guanine quadruplex DNA interaction regulates alternative polyadenylation and detyrosinase activity of VASH1. *Nucleic Acids Res.* 48: 11994-12003.

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.