SANTA CRUZ BIOTECHNOLOGY, INC.

Vasohibin-2 (V-13): sc-138720

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Angiogenesis is 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-2, also known as VASH2, is a 355 amino acid protein belonging to the vasohibin family. Expressed in various embryonic organs, Vasohibin-2 can be detected during embryonic weeks 6 through 12 and is found in vessels of 20-week embryonic organs as well as in endothelial cells of neonatal large vessels. Induced by VEGF, Vasohibin-2 is an angiogenesis inhibitor and interferes with the proliferation, migration and network formation by endothelial cells. Vasohibin-2 exists as 5 isoforms and is encoded by a gene located on human chromosome 1, which houses over 3,000 genes and is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome.

REFERENCES

1. Kerbel, R.S. 2004. Vasohibin: the feedback on a new inhibitor of angiogenesis. J. Clin. Invest. 114: 884-886.
2. Watanabe, K., et al. 2004. Vasohibin as an endothelium-derived negative feedback regulator of angiogenesis. J. Clin. Invest. 114: 898-907.
3. Shimizu, K., et al. 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., et al. 2006. Vasohibin is upregulated by VEGF in the retina and suppresses VEGF receptor 2 and retinal neovascularization. FASEB J. 20: 723-725.

CHROMOSOMAL LOCATION

Genetic locus: VASH2 (human) mapping to 1q32.3; Vash2 (mouse) mapping to 1 H6.

SOURCE

Vasohibin-2 (V-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Vasohibin-2 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-138720 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Vasohibin-2 (V-13) is recommended for detection of Vasohibin-2 isoforms 1, 2, 3 and 5 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); non cross-reactive with family member Vasohibin-1 or Vasohibin-2 isoform 4.

Vasohibin-2 (V-13) is also recommended for detection of Vasohibin-2 isoforms 1, 2, 3 and 5 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Vasohibin-2 siRNA (h): sc-78558, Vasohibin-2 siRNA (m): sc-155093, Vasohibin-2 shRNA Plasmid (h): sc-78558-SH, Vasohibin-2 shRNA Plasmid (m): sc-155093-SH, Vasohibin-2 shRNA (h) Lentiviral Particles: sc-78558-V and Vasohibin-2 shRNA (m) Lentiviral Particles: sc-155093-V.

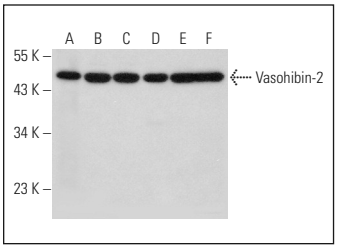
Molecular Weight of Vasohibin-2: 40 kDa.

Positive Controls: MDA-MB-435S whole cell lysate: sc-364184, A549 cell lysate: sc-2413 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Vasohibin-2 (V-13): sc-138720. Western blot analysis of Vasohibin-2 expression in human fetal liver tissue extract (**A**) and MDA-MB-435S (**B**), HEK293 (**C**), A549 (**D**), HeLa (**E**) and Jurkat (**F**) whole cell lysates.

RESEARCH USE

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