SANTA CRUZ BIOTECHNOLOGY, INC.

VEGF-C (N-19): sc-7133

BACKGROUND

The onset of angiogenesis is believed to be an early event in tumorigenesis and may facilitate tumor progression and metastasis. Several growth factors with angiogenic activity have been described. These include fibroblast growth factor (FGF), platelet derived growth factor (PDGF) and vascular endothelial growth factor (VEGF). VEGF is a dimeric glycoprotein with structural homology to PDGF. Several variants of VEGF have been described that arise by alternative mRNA splicing. It has been speculated that VEGF may function as a tumor angiogenesis factor *in vivo*. Two additional proteins designated VEGF-B and VEGF-C share a significant degree of homology with VEGF. VEGF-B is abundantly expressed in heart and skeletal muscle and is frequently coexpressed with VEGF. VEGF-C binds to and specifically activates Flt-4 and Flk-1. The genes that encode VEGF-B and VEGF-C have been localized to chromosomes 11q13.1 and 4q34.3, respectively.

CHROMOSOMAL LOCATION

Genetic locus: VEGFC (human) mapping to 4q34.3; Vegfc (mouse) mapping to 8 B1.3.

SOURCE

VEGF-C (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of VEGF-C 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-7133 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

VEGF-C (N-19) is recommended for detection of precursor VEGF-C of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 VEGF-C siRNA (h): sc-39842, VEGF-C siRNA (m): sc-39843, VEGF-C shRNA Plasmid (h): sc-39842-SH, VEGF-C shRNA Plasmid (m): sc-39843-SH, VEGF-C shRNA (h) Lentiviral Particles: sc-39842-V and VEGF-C shRNA (m) Lentiviral Particles: sc-39843-V.

Molecular Weight of VEGF-C: 40/80 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, mouse brain extract: sc-2253 or RAW 264.7 whole cell lysate: sc-2211.

RESEARCH USE

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

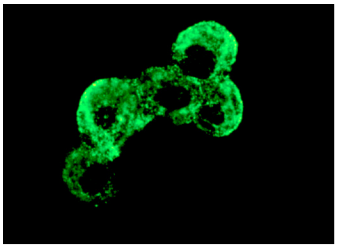
PROTOCOLS

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

STORAGE

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

DATA



VEGF-C (N-19): sc-7133. Immunofluorescence staining of methanol-fixed RAW 264.7 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Valtola, R., et al. 1999. VEGFR-3 and its ligand VEGF-C are associated with angiogenesis in breast cancer. Am. J. Pathol. 154: 1381-1390.
2. Katsuta, M., et al. 2005. Correlation of hypoxia inducible factor-1α with lymphatic metastasis via vascular endothelial growth factor-C in human esophageal cancer. Exp. Mol. Pathol. 78: 123-130.
3. Foster, R.R., et al. 2006. VEGF-C promotes survival in podocytes. Am. J. Physiol. Renal Physiol. 291: F196-F207.
4. Massi, D., et al. 2006. Tumour lymphangiogenesis is a possible predictor of sentinel lymph node status in cutaneous melanoma: a case-control study. J. Clin. Pathol. 59: 166-173.
5. Joory, K.D., et al. 2006. Vascular endothelial growth factor-C (VEGF-C) expression in normal human tissues. Lymphat. Res. Biol. 4: 73-82.
6. Gretschel, S., et al. 2008. Markers of tumour angiogenesis and tumour cells in bone marrow in gastric cancer patients. Eur. J. Surg. Oncol. 34: 642-647.
7. Boone, B., et al. 2008. The role of VEGF-C staining in predicting regional metastasis in melanoma. Virchows Arch. 453: 257-265.
8. Du, B., et al. 2011. Metastasis-associated protein 1 induces VEGF-C and facilitates lymphangiogenesis in colorectal cancer. World J. Gastroenterol. 17: 1219-1226.
9. Cianfarani, F., et al. 2012. Expression of vascular endothelial growth factor-C in primary cutaneous melanoma predicts sentinel lymph node positivity. J. Cutan. Pathol. 39: 826-834.