SANTA CRUZ BIOTECHNOLOGY, INC.

VEGF-D (C-18): sc-7602

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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). Several forms of VEGF have been identified, including VEGF, VEGF-B, VEGF-C and VEGF-D (also designated FIGF). Characteristic of VEGF proteins, the central region of VEGF-D contains eight cysteine residues. These residues are essential for homodimerization. VEGF-D may play a role in tumor progression, as it is induced by c-Fos, which is required for conversion of early stage tumors to malignant tumors. It has been observed that over-expression of VEGF-D induces morphological changes in fibroblasts.

REFERENCES

1. Folkman, J. and Klagsburn, M. 1987. Angiogenic factors. Science 235: 442-447.
2. Folkman, J., et al. 1989. Induction of angiogenesis during the transition from hyperplasia to neoplasia. Nature 339: 58-61.
3. Bouck, N. 1990. Tumor angiogenesis: the role of oncogenes and tumor suppressor genes. Cancer Cells 2: 179-185.
4. Ferrara, N., et al. 1991. The vascular endothelial growth factor family of polypeptides. J. Cell Biochem. 47: 211-218.

CHROMOSOMAL LOCATION

Genetic locus: FIGF (human) mapping to Xp22.2.

SOURCE

VEGF-D (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of VEGF-D 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-7602 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

VEGF-D (C-18) is recommended for detection of precursor VEGF-D of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for VEGF-D siRNA (h): sc-39844, VEGF-D shRNA Plasmid (h): sc-39844-SH and VEGF-D shRNA (h) Lentiviral Particles: sc-39844-V.

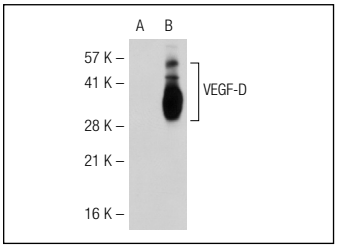
Molecular Weight of VEGF-D: 21 kDa.

Positive Controls: VEGF-D (h): 293T Lysate: sc-114175 or MCF7 whole cell lysate: sc-2206.

STORAGE

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

DATA



VEGF-D (C-18): sc-7602. Western blot analysis of VEGF-D expression in non-transfected: sc-117752 (**A**) and human VEGF-D transfected: sc-114175 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Ito, F. and Komatsu, Y. 1980. Transduction and encoding mechanisms in muscle spindle. Nagoya J. Med. Sci. 42: 37-48.
2. Currie, M.J., et al. 2004. Expression of vascular endothelial growth factor D is associated with hypoxia inducible factor (HIF-1α) and the HIF-1α target gene DEC1, but not lymph node metastasis in primary human breast carcinomas. J. Clin. Pathol. 57: 829-834.
3. Möller, B., et al. 2005. Expression of vascular endothelial growth factors and their receptors in human endometrium from women experiencing abnormal bleeding patterns after prolonged use of a levonorgestrel-releasing intrauterine system. Hum. Reprod. 20: 1410-1417.
4. 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.
5. Schäfer, G., et al. 2008. Regulation of vascular endothelial growth factor D by orphan receptors hepatocyte nuclear factor-4 α and chicken ovalbumin upstream promoter transcription factors 1 and 2. Cancer Res. 68: 457-466.
6. Wang, J., et al. 2011. Aurora-A as an independent molecular prognostic marker in gastric cancer. Oncol. Rep. 26: 23-32.
7. Sasahira, T., et al. 2013. Trks are novel oncogenes involved in the induction of neovascularization, tumor progression, and nodal metastasis in oral squamous cell carcinoma. Clin. Exp. Metastasis 30: 165-176.

RESEARCH USE

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