SANTA CRUZ BIOTECHNOLOGY, INC.

VEGF-D (N-19): sc-7603

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., et al. 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.

CHROMOSOMAL LOCATION

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

SOURCE

VEGF-D (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-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-7603 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

VEGF-D (N-19) is recommended for detection of precursor VEGF-D of 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 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: 40 kDa.

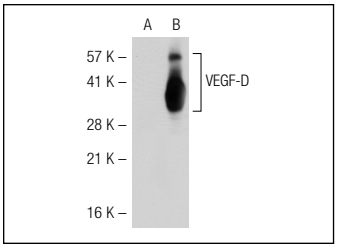
Molecular Weight of VEGF-D processed: 21 kDa.

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

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



VEGF-D (N-19): sc-7603. 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. Onogawa, S., et al. 2005. Expression of vascular endothelial growth factor (VEGF)-C and VEGF-D in early gastric carcinoma: correlation with clinico-pathological parameters. Cancer Lett. 226: 85-90.
2. Warburton, G., et al. 2007. Histopathological and lymphangiogenic parameters in relation to lymph node metastasis in early stage oral squamous cell carcinoma. J. Oral Maxillofac. Surg. 65: 475-484.
3. Brar, R., et al. 2009. Breast angiosarcoma: case series and expression of vascular endothelial growth factor. Case Rep. Oncol. 2: 242-250.

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.