SANTA CRUZ BIOTECHNOLOGY, INC.

VEGF-D (G-19): sc-6314

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 overexpression 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.
4. Ferrara, N., et al. 1991. The vascular endothelial growth factor family of polypeptides. J. Cell. Biochem. 47: 211-218.
5. Orlandini, M., et al. 1996. Identification of a c-fos-induced gene that is related to the platelet-derived growth factor/ vascular endothelial growth factor family. Proc. Natl. Acad. Sci. USA 93: 11675-11680.
6. Yamada, Y., et al. 1997. Molecular cloning of a novel vascular endothelial growth factor, VEGF-D. Genomics 42: 483-488.

CHROMOSOMAL LOCATION

Genetic locus: Figf (mouse) mapping to X F5.

SOURCE

VEGF-D (G-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of VEGF-D of mouse 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-6314 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.

PROTOCOLS

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

APPLICATIONS

VEGF-D (G-19) is recommended for detection of precursor VEGF-D of mouse and rat 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), 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 VEGF-D siRNA (m): sc-39845, VEGF-D shRNA Plasmid (m): sc-39845-SH and VEGF-D shRNA (m) Lentiviral Particles: sc-39845-V.

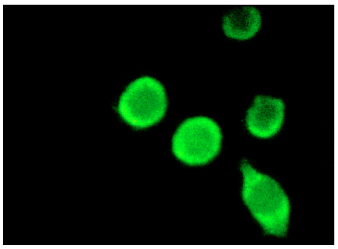
Molecular Weight of processed VEGF-D: 21 kDa.

Molecular Weight of VEGF-D: 40 kDa.

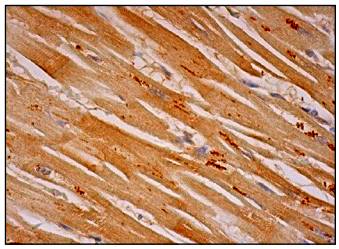
RECOMMENDED SECONDARY REAGENTS

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) 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



VEGF-D (G-19): sc-6314. Immunofluorescence staining of methanol-fixed MH-S cells showing cytoplasmic localization.



VEGF-D (G-19): sc-6314. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

RESEARCH USE

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