SANTA CRUZ BIOTECHNOLOGY, INC.

# VEGF-D (MM0007-7E79): sc-101584

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., Watson, K., Ingber, D. and Hanahan, D. 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., Houck, K.A., Jakeman, L.B., Winer, J. and Leung, D.W. 1991. The vascular endothelial growth factor family of polypeptides. J. Cell. Biochem. 47: 211-218.
5. Orlandini, M., Marconcini, L., Ferruzzi, R. and Oliviero, S. 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., Nezu, J., Shimane, M. and Hirata, Y. 1997. Molecular cloning of a novel vascular endothelial growth factor, VEGF-D. Genomics 42: 483-488.


## CHROMOSOMAL LOCATION

Genetic locus: FIGF (human) mapping to Xp22.31.

## SOURCE

VEGF-D (MM0007-7E79) is a mouse monoclonal antibody raised against recombinant VEGF-D of human origin.

## PRODUCT

Each vial contains 100 µg $IgG_2$ in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

## 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.

## APPLICATIONS

VEGF-D (MM0007-7E79) is recommended for detection of VEGF-D of 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with VEGF or VEGF-B.

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.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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 goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## PROTOCOLS

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