

# VEGF-D (H-144): sc-13085

## 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.

## CHROMOSOMAL LOCATION

Genetic locus: FIGF (human) mapping to Xp22.2; Figf (mouse) mapping to X F5.

## SOURCE

VEGF-D (H-144) is a rabbit polyclonal antibody raised against amino acids 211-354 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.

## APPLICATIONS

VEGF-D (H-144) is recommended for detection of precursor VEGF-D of mouse, rat and 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).

VEGF-D (H-144) is also recommended for detection of precursor VEGF-D in additional species, including equine.

Suitable for use as control antibody for VEGF-D siRNA (h): sc-39844, VEGF-D siRNA (m): sc-39845, VEGF-D shRNA Plasmid (h): sc-39844-SH, VEGF-D shRNA Plasmid (m): sc-39845-SH, VEGF-D shRNA (h) Lentiviral Particles: sc-39844-V 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.

Positive Controls: MCF7 whole cell lysate: sc-2206 or VEGF-D (m): 293T Lysate: sc-124553.

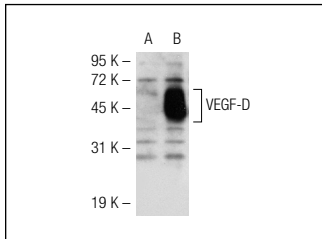
## RESEARCH USE

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

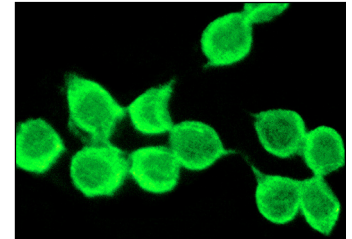
## STORAGE

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

## DATA



VEGF-D (H-144): sc-13085. Western blot analysis of VEGF-D expression in non-transfected: sc-117752 (A) and mouse VEGF-D transfected: sc-124553 (B) 293T whole cell lysates.



VEGF-D (H-144): sc-13085. Immunofluorescence staining of methanol-fixed MH-S cells showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS

1. Schoppmann, S.F., et al. 2002. Tumor-associated macrophages express lymphatic endothelial growth factors and are related to peritumoral lymphangiogenesis. *Am. J. Pathol.* 161: 947-956.
2. Yu, M., et al. 2007. Expression patterns of lymphangiogenic and angiogenic factors in a model of breast ductal carcinoma *in situ*. *Am. J. Surg.* 194: 594-599.
3. Moehler, M., et al. 2008. VEGF-D expression correlates with colorectal cancer aggressiveness and is downregulated by cetuximab. *World J. Gastroenterol.* 14: 4156-4167.
4. Bolat, F., et al. 2008. Maspin overexpression correlates with increased expression of vascular endothelial growth factors A, C, and D in human ovarian carcinoma. *Pathol. Res. Pract.* 204: 379-387.
5. Detoraki, A., et al. 2009. Vascular endothelial growth factors synthesized by human lung mast cells exert angiogenic effects. *J. Allergy Clin. Immunol.* 123: 1142-1149, 1149.e1-1149.e5.
6. Sie, M., et al. 2009. The angiopoietin 1/angiopoietin 2 balance as a prognostic marker in primary glioblastoma multiforme. *J. Neurosurg.* 110: 147-155.
7. Granata, F., et al. 2010. Production of vascular endothelial growth factors from human lung macrophages induced by group IIA and group X secreted phospholipases A<sub>2</sub>. *J. Immunol.* 184: 5232-5241.
8. Hadler-Olsen, E., et al. 2010. Stromal impact on tumor growth and lymphangiogenesis in human carcinoma xenografts. *Virchows Arch.* 457: 677-692.


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Try **VEGF-D (C-12): sc-373866**, our highly recommended monoclonal alternative to VEGF-D (H-144).