

VEGF-C (F-5): sc-398004



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). VEGF is a dimeric glycoprotein with structural homology to PDGF. Several variants of VEGF have been described that arise by alternative mRNA splicing. It has been speculated that VEGF may function as a tumor angiogenesis factor *in vivo*. Two additional proteins, designated VEGF-B and VEGF-C, share a significant degree of homology with VEGF. VEGF-B is abundantly expressed in heart and skeletal muscle and is frequently coexpressed with VEGF. VEGF-C binds to and specifically activates Flt-4 and Flk-1. The genes that encode VEGF-B and VEGF-C have been localized to chromosomes 11q13.1 and 4q34.3, respectively.

REFERENCES

1. Folkman, J., et al. 1989. Induction of angiogenesis during the transition from hyperplasia to neoplasia. *Nature* 339: 58-61.
2. Ferrara, N., et al. 1991. The vascular endothelial growth factor family of polypeptides. *J. Cell. Biochem.* 47: 211-218.
3. Plate, K.H., et al. 1992. Vascular endothelial growth factor is a potential tumour angiogenesis factor in human gliomas *in vivo*. *Nature* 359: 845-848.
4. Breier, G., et al. 1992. Expression of vascular endothelial growth factor during embryonic angiogenesis and endothelial cell differentiation. *Development* 114: 521-532.
5. Berse, B., et al. 1992. Vascular permeability factor (vascular endothelial growth factor) gene is expressed differentially in normal tissues, macrophages and tumors. *Mol. Biol. Cell* 3: 211-220.
6. Olofsson, B., et al. 1996. Vascular endothelial growth factor B, a novel growth factor for endothelial cells. *Proc. Natl. Acad. Sci. USA* 93: 2576-2581.

CHROMOSOMAL LOCATION

Genetic locus: VEGFC (human) mapping to 4q34.3; Vegfc (mouse) mapping to 8 B1.3.

SOURCE

VEGF-C (F-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 29-52 near the N-terminus of VEGF-C of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-398004 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

VEGF-C (F-5) is recommended for detection of VEGF-C precursor of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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-C siRNA (h): sc-39842, VEGF-C siRNA (m): sc-39843, VEGF-C shRNA Plasmid (h): sc-39842-SH, VEGF-C shRNA Plasmid (m): sc-39843-SH, VEGF-C shRNA (h) Lentiviral Particles: sc-39842-V and VEGF-C shRNA (m) Lentiviral Particles: sc-39843-V.

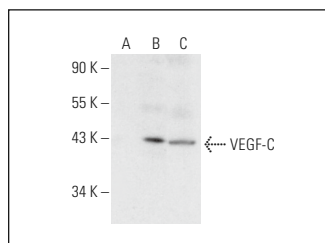
Molecular Weight of VEGF-C: 40/80 kDa.

Positive Controls: VEGF-C (h2): 293T Lysate: sc-116733, RAW 264.7 whole cell lysate: sc-2211 or MH-S whole cell lysate: sc-364785.

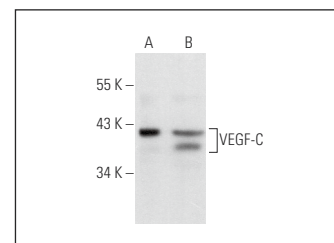
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



VEGF-C (F-5): sc-398004. Western blot analysis of VEGF-C expression in non-transfected 293T: sc-117752 (A), human VEGF-C transfected 293T: sc-116733 (B) and MH-S (C) whole cell lysates.



VEGF-C (F-5): sc-398004. Western blot analysis of VEGF-C expression in RAW 264.7 (A) and MCF7 (B) whole cell lysates.

STORAGE

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



See **VEGF-C (E-6): sc-374628** for VEGF-C antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.