SANTA CRUZ BIOTECHNOLOGY, INC.

VEGF-C (MM0006-2E65): sc-101583

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). 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 andendothelial 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.
7. Joukov, V., et al. 1996. A novel vascular endothelial growth factor, VEGF-C, is a ligand for the Flt-4 (VEGFR-3) and KDR (VEGFR-2) receptor tyrosine kinases. EMBO J. 15: 290-298.

CHROMOSOMAL LOCATION

Genetic locus: VEGFC (human) mapping to 4q34.3.

SOURCE

VEGF-C (MM0006-2E65) is a mouse monoclonal antibody raised against recombinant VEGF-C 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.

APPLICATIONS

VEGF-C (MM0006-2E65) is recommended for detection of VEGF-C 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with VEGF, VEGF-B or VEGF-D.

Suitable for use as control antibody for VEGF-C siRNA (h): sc-39842, VEGF-C shRNA Plasmid (h): sc-39842-SH and VEGF-C shRNA (h) Lentiviral Particles: sc-39842-V.

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

Positive Controls: MCF7 whole cell lysate: sc-2206.

SELECT PRODUCT CITATIONS

1. Výbohová, D., et al. 2015. Quantitative comparison of angiogenesis and lymphangiogenesis in cutaneous lichen planus and psoriasis: immunohistochemical assessment. Acta Histochem. 117: 20-28.

RESEARCH USE

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

PROTOCOLS

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

CONJUGATES

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.