SANTA CRUZ BIOTECHNOLOGY, INC.

VEGF-B (C-19): sc-1876

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 and include fibroblast growth factor (FGF), platelet derived growth factor (PDGF) and vascular endothelial growth factors (VEGFs). The VEGF protein family is comprised of VEGF, VEGF-B, VEGF-C and VEGF-D, all of which may exhibit angiogenic function *in vivo*. VEGF-B, which exists as two alternatively spliced isoforms known as VEGF-B167 and VEGF-B186, is abundantly expressed in heart and skeletal muscle and is frequently co-expressed with VEGF. VEGF-C binds to and specifically activates Flt-4 and Flk-1. The genes that encode human 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.

CHROMOSOMAL LOCATION

Genetic locus: VEGFB (human) mapping to 11q13.1; Vegfb (mouse) mapping to 19 A.

SOURCE

VEGF-B (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of VEGF-B 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.

Blocking peptide available for competition studies, sc-1876 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

VEGF-B (C-19) is recommended for detection of VEGF-B of mouse, rat and 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), 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).

VEGF-B (C-19) is also recommended for detection of VEGF-B in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for VEGF-B siRNA (h): sc-39840, VEGF-B siRNA (m): sc-39841, VEGF-B shRNA Plasmid (h): sc-39840-SH, VEGF-B shRNA Plasmid (m): sc-39841-SH, VEGF-B shRNA (h) Lentiviral Particles: sc-39840-V and VEGF-B shRNA (m) Lentiviral Particles: sc-39841-V.

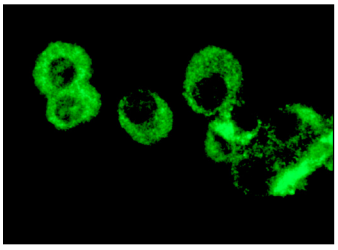
Molecular Weight of VEGF-B: 22 kDa.

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

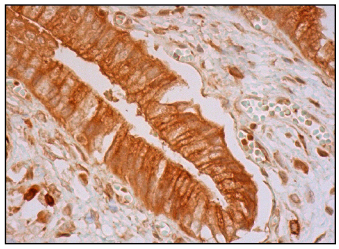
STORAGE

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

DATA



VEGF-B (C-19): sc-1876. Immunofluorescence staining of methanol-fixed RAW 264.7 cells showing cytoplasmic localization.



VEGF-B (C-19): sc-1876. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing membrane and cytoplasmic staining of glandular cells and extracellular staining of connective tissue.

SELECT PRODUCT CITATIONS

1. Belgore, F., et al. 2004. Localisation of members of the vascular endothelial growth factor (VEGF) family and their receptors in human atherosclerotic arteries. J. Clin. Pathol. 57: 266-272.
2. Gruber, T., et al. 2008. PKCθ cooperates with atypical PKCζ and PKCι in NFκB transactivation of T lymphocytes. Mol. Immunol. 45: 117-126.
3. Bredemeyer, A.J., et al. 2009. The gastric epithelial progenitor cell niche and differentiation of the zymogenic (chief) cell lineage. Dev. Biol. 325: 211-224.
4. Gómez-Ambrosi, J., et al. 2009. Involvement of serum vascular endothelial growth factor family members in the development of obesity in mice and humans. J. Nutr. Biochem. 21: 774-780.
5. Müller-Deile, J., et al. 2009. The balance of autocrine VEGF-A and VEGF-C determines podocyte survival. Am. J. Physiol. Renal Physiol. 297: F1656-F1667.

RESEARCH USE

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

PROTOCOLS

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