

# VEGF-B (56-1): sc-81670

## 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, respectively.

## CHROMOSOMAL LOCATION

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

## SOURCE

VEGF-B (56-1) is a mouse monoclonal antibody raised against the C-terminus of VEGF-B165 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

VEGF-B (56-1) is recommended for detection of a 9 amino acid sequence at the C-terminus of VEGF-B165 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with VEGF-B167, VEGF-B186, VEGF-C, VEGF-D, and VEGF206 of human origin.

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.

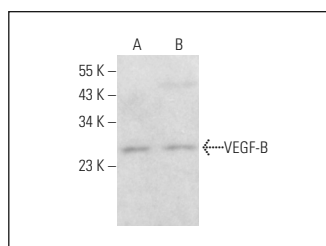
Molecular Weight of VEGF-B: 22 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, PC-12 cell lysate: sc-2250 or BC<sub>3</sub>H1 cell lysate: sc-2299.

## 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 A/G PLUS-Agarose: sc-2003 (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-B (56-1): sc-81670. Western blot analysis of VEGF-B expression in BC<sub>3</sub>H1 (A) and PC-12 (B) whole cell lysates.

## SELECT PRODUCT CITATIONS

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- Jiang, N., et al. 2018. The role of pirfenidone in alkali burn rat cornea. *Int. Immunopharmacol.* 64: 78-85.
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- Zhang, W., et al. 2019. MicroRNA-15a-5p induces pulmonary artery smooth muscle cell apoptosis in a pulmonary arterial hypertension model via the VEGF/p38/MMP-2 signaling pathway. *Int. J. Mol. Med.* E-published.

## RESEARCH USE

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