

VEGF (C-1): sc-7269

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 factors (FGFs), 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* because the expression pattern of VEGF is consistent with a role in embryonic angiogenesis. VEGF mRNA is formed in some primary tumors, VEGF is produced by tumor cell lines *in vitro* and VEGF mitogenic activity appears to be restricted to endothelial cells. A member of the PDGF receptor family, Flt, has been identified as a high-affinity receptor for VEGF.

CHROMOSOMAL LOCATION

Genetic locus: VEGFA (human) mapping to 6p21.1; Vegfa (mouse) mapping to 17 C.

SOURCE

VEGF (C-1) is a mouse monoclonal antibody raised against amino acids 1-140 of VEGF of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

VEGF (C-1) is available conjugated to agarose (sc-7269 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-7269 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-7269 PE), fluorescein (sc-7269 FITC), Alexa Fluor® 488 (sc-7269 AF488), Alexa Fluor® 546 (sc-7269 AF546), Alexa Fluor® 594 (sc-7269 AF594) or Alexa Fluor® 647 (sc-7269 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-7269 AF680) or Alexa Fluor® 790 (sc-7269 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

VEGF (C-1) is recommended for detection of the 189, 165 and 121 amino acid splice variants of VEGF 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for VEGF siRNA (h): sc-29520, VEGF siRNA (m): sc-36815, VEGF shRNA Plasmid (h): sc-29520-SH, VEGF shRNA Plasmid (m): sc-36815-SH, VEGF shRNA (h) Lentiviral Particles: sc-29520-V and VEGF shRNA (m) Lentiviral Particles: sc-36815-V.

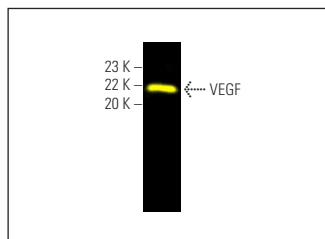
Molecular Weight of VEGF monomer: 21 kDa.

Molecular Weight of VEGF dimer: 42 kDa.

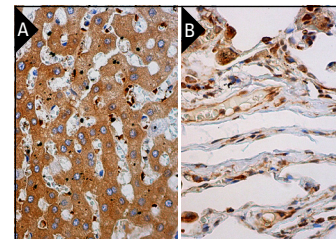
STORAGE

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

DATA



VEGF (C-1) Alexa Fluor® 488: sc-7269 AF488. Direct fluorescent western blot analysis of VEGF expression in human liver tissue extract. Blocked with UltraCruz® Blocking Reagent: sc-516214.



VEGF (C-1): sc-7269. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human lung tissue showing cytoplasmic staining of pneumocytes and macrophages (B).

SELECT PRODUCT CITATIONS

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- Li, L., et al. 2016. Oleonic acid inhibits colorectal cancer angiogenesis *in vivo* and *in vitro* via suppression of Stat3 and Hedgehog pathways. *Mol. Med. Rep.* 13: 5276-5282.
- Mrowczynski, O.D., et al. 2017. HFE genotype affects exosome phenotype in cancer. *Biochim. Biophys. Acta* 1861: 1921-1928.
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- Sun, X., et al. 2019. Aurora kinase inhibitor VX-680 suppresses the proliferation and migration of HUVECs and angiogenesis. *Mol. Med. Rep.* 19: 3841-3847.
- Chang, Z., et al. 2020. Snail promotes the generation of vascular endothelium by breast cancer cells. *Cell Death Dis.* 11: 457.
- Al Shahrani, M., et al. 2021. Computational and *in vitro* characterization of ICY-5: a potential candidate promoting mitochondrial apoptosis via the c-MET and Stat3 pathways. *J. Cell. Physiol.* 236: 146-156.

RESEARCH USE

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