SANTA CRUZ BIOTECHNOLOGY, INC.

VEGF (C-1): sc-7269

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 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 IgG_1 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.

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.

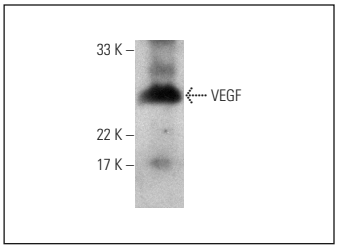
Molecular Weight of VEGF monomer: 21 kDa.

Molecular Weight of VEGF dimer: 42 kDa.

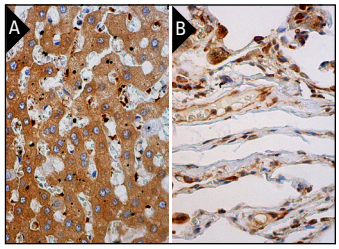
STORAGE

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) HRP: sc-7269 HRP. Direct western blot analysis of VEGF expression in mouse liver tissue extract.



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

1. Corne, J., et al. 2000. IL-13 stimulates vascular endothelial cell growth factor and protects against hyperoxic acute lung injury. J. Clin. Invest. 106: 783-791.
2. Zheng, L., et al. 2017. Benzoquinone from *Fusarium* pigment inhibits the proliferation of estrogen receptor-positive MCF-7 cells through the NFκB pathway via estrogen receptor signaling. Int. J. Mol. Med. 39: 39-46.
3. Graus-Nunes, F., et al. 2017. Differential effects of angiotensin receptor blockers on pancreatic islet remodelling and glucose homeostasis in diet-induced obese mice. Mol. Cell. Endocrinol. 439: 54-64.
4. Silva, M.L., et al. 2017. Effect of hyperbaric oxygen therapy on tooth extraction sites in rats subjected to bisphosphonate therapy-histomorphometric and immunohistochemical analysis. Clin. Oral Investig. 21: 199-210.
5. Tian, L., et al. 2017. Siamese crocodile bile induces apoptosis in NCI-H1299 human non-small cell lung cancer cells via a mitochondria-mediated intrinsic pathway and inhibits tumorigenesis. Mol. Med. Rep. 15: 1727-1737.
6. Mrowczynski, O.D., et al. 2017. HFE genotype affects exosome phenotype in cancer. Biochim. Biophys. Acta 1861: 1921-1928.
7. Chu, Y.W., et al. 2017. The cytotoxic mechanism of epigallocatechin gallate on proliferative HaCaT keratinocytes. J. Biomed. Sci. 24: 55.
8. Hirayama, Y., et al. 2017. Preventive effects of nucleoprotein supplementation combined with intermittent loading on capillary regression induced by hindlimb unloading in rat soleus muscle. Physiol. Rep. 5: 877-887.

RESEARCH USE

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