SANTA CRUZ BIOTECHNOLOGY, INC.

VEGF-D (C-12): sc-373866

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). Several forms of VEGF have been identified, including VEGF, VEGF-B, VEGF-C and VEGF-D (also designated FIGF). Characteristic of VEGF proteins, the central region of VEGF-D contains eight cysteine residues. These residues are essential for homodimerization. VEGF-D may play a role in tumor progression, as it is induced by c-Fos, which is required for conversion of early stage tumors to malignant tumors. It has been observed that overexpression of VEGF-D induces morphological changes in fibroblasts.

CHROMOSOMAL LOCATION

Genetic locus: FIGF (human) mapping to Xp22.2.

SOURCE

VEGF-D (C-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 330-353 at the C-terminus of VEGF-D 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-D (C-12) is available conjugated to agarose (sc-373866 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-373866 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373866 PE), fluorescein (sc-373866 FITC), Alexa Fluor® 488 (sc-373866 AF488), Alexa Fluor® 546 (sc-373866 AF546), Alexa Fluor® 594 (sc-373866 AF594) or Alexa Fluor® 647 (sc-373866 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-373866 AF680) or Alexa Fluor® 790 (sc-373866 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-373866 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

VEGF-D (C-12) is recommended for detection of precursor VEGF-D of human origin by Western Blotting (starting dilution 1:100, 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for VEGF-D siRNA (h): sc-39844, VEGF-D shRNA Plasmid (h): sc-39844-SH and VEGF-D shRNA (h) Lentiviral Particles: sc-39844-V.

Molecular Weight of VEGF-D: 40 kDa.

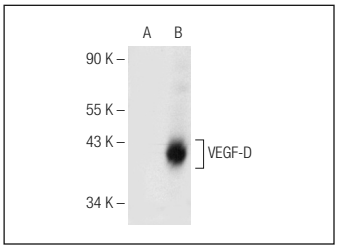
Molecular Weight of processed VEGF-D: 21 kDa.

Positive Controls: VEGF-D (h): 293T Lysate: sc-114175 or 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-D (C-12): sc-373866. Western blot analysis of VEGF-D expression in non-transfected: sc-117752 (**A**) and human VEGF-D transfected: sc-114175 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Da, W., et al. 2019. Curcumin inhibits the lymphangiogenesis of gastric cancer cells by inhibiton of HMGB1/VEGF-D signaling. Int. J. Immunopathol. Pharmacol. 33: 2058738419861600.
2. Schlüter, A., et al. 2019. VEGFD protects retinal ganglion cells and, consequently, capillaries against excitotoxic injury. Mol. Ther. Methods Clin. Dev. 17: 281-299.
3. Tsuru, S., et al. 2020. RAMP1 signaling in immune cells regulates inflammation-associated lymphangiogenesis. Lab. Invest. 100: 738-750.
4. Kim, I.K., et al. 2020. Mutant GTF2I induces cell transformation and metabolic alterations in thymic epithelial cells. Cell Death Differ. 27: 2263-2279.
5. Mauceri, D., et al. 2020. Nasally delivered VEGFD mimetics mitigate stroke-induced dendrite loss and brain damage. Proc. Natl. Acad. Sci. USA 117: 8616-8623.
6. Wang, Y.S., et al. 2021. (20S) ginsenoside Rh2 inhibits STAT3/VEGF signaling by targeting annexin A2. Int. J. Mol. Sci. 22: 9289.
7. He, Q., et al. 2022. Suppression of VEGFD expression by S-nitrosylation promotes the development of lung adenocarcinoma. J. Exp. Clin. Cancer Res. 41: 239.
8. Yao, W., et al. 2023. Exosomal circ_0026611 contributes to lymphangiogenesis by reducing PROX1 acetylation and ubiquitination in human lymphatic endothelial cells (HLECs). Cell. Mol. Biol. Lett. 28: 13.

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.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA