SANTA CRUZ BIOTECHNOLOGY, INC.

EG-VEGF (E-12: sc-390741

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Endocrine gland-derived vascular endothelial growth factor (EG-VEGF) induces proliferation, migration, and fenestration in capillary endothelial cells derived from endocrine glands. EG-VEGF possesses an HIF-1 binding site; its expression is induced by hypoxia and restricted to the steroidogenic glands (ovary, testis, adrenal and placenta). Expression of EG-VEGF is often complementary to the expression of VEGF, suggesting that these molecules function in a coordinated manner. EG-VEGF is an example of a class of highly specific mitogens that act to regulate proliferation and differentiation of the vascular endothelium in a tissue-specific manner. It is expressed primarily in one type of tissue and acts selectively on one type of endothelium. EG-VEGF, possibly through binding to a G protein-coupled receptor, results in the activation of MAPK p44/42 and phosphatidylinositol 3-kinase signaling pathways, leading to proliferation, migration and survival of responsive endothelial cells.

CHROMOSOMAL LOCATION

Genetic locus: PROK1 (human) mapping to 1p13.3; Prok1 (mouse) mapping to 3 F2.3.

SOURCE

EG-VEGF (E-12 is a mouse monoclonal antibody raised against amino acids 66-105 mapping at the C-terminus of EG-VEGF of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

EG-VEGF (E-12 is available conjugated to agarose (sc-390741 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-390741 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390741 PE), fluorescein (sc-390741 FITC), Alexa Fluor® 488 (sc-390741 AF488), Alexa Fluor® 546 (sc-390741 AF546), Alexa Fluor® 594 (sc-390741 AF594) or Alexa Fluor® 647 (sc-390741 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390741 AF680) or Alexa Fluor® 790 (sc-390741 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

EG-VEGF (E-12 is recommended for detection of precursor and mature EG-VEGF of mouse, rat and 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); may cross-react with Prokineticin-2.

Suitable for use as control antibody for EG-VEGF siRNA (h): sc-45392, EG-VEGF siRNA (m): sc-45393, EG-VEGF shRNA Plasmid (h): sc-45392-SH, EG-VEGF shRNA Plasmid (m): sc-45393-SH, EG-VEGF shRNA (h) Lentiviral Particles: sc-45392-V and EG-VEGF shRNA (m) Lentiviral Particles: sc-45393-V.

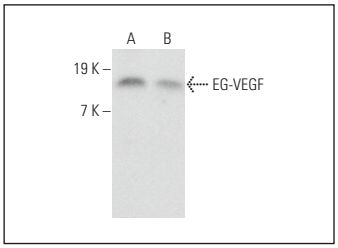
Molecular Weight of EG-VEGF: 12 kDa.

Positive Controls: human EG-VEGF transfected whole cell lysate, mouse testis extract: sc-2405 or c4 whole cell lysate: sc-364186.

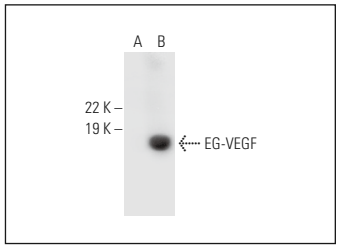
RECOMMENDED SUPPORT REAGENTS

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



EG-VEGF (E-12): sc-390741. Western blot analysis of EG-VEGF expression in mouse testis tissue extract (**A**) and c4 whole cell lysate (**B**).



EG-VEGF (E-12): sc-390741. Western blot analysis of EG-VEGF expression in non-transfected (**A**) and human EG-VEGF transfected (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Li, J., et al. 2018. Berberine hydrochloride inhibits cell proliferation and promotes apoptosis of non-small cell lung cancer via the suppression of the MMP2 and Bcl-2/Bax signaling pathways. Oncol. Lett. 15: 7409-7414.
2. Houri, A., et al. 2023. Suprabasin enhances the invasion, migration, and angiogenic ability of oral squamous cell carcinoma cells under hypoxic conditions. Oncol. Rep. 49: 83.

STORAGE

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

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.