SANTA CRUZ BIOTECHNOLOGY, INC.

EG-VEGF (P-15): sc-30345

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.

REFERENCES

1. Carmeliet, P. 2001. Cardiovascular biology. Creating unique blood vessels. Nature 412: 868-869.
2. LeCouter, J., et al. 2001. Identification of an angiogenic mitogen selective for endocrine gland endothelium. Nature 412: 877-984.
3. Lin, R., et al. 2002. Characterization of endocrine gland-derived vascular endothelial growth factor signaling in adrenal cortex capillary endothelial cells. J. Biol. Chem. 277: 8724-8729.
4. Lin, D.C., et al. 2002. Identification and molecular characterization of two closely related G protein-coupled receptors activated by prokineticins/EG-VEGF. J. Biol. Chem. 277: 19276-19280.
5. Ferrara, N., et al. 2002. Endocrine gland vascular endothelial growth factor (EG-VEGF) and the hypothesis of tissue-specific regulation of angiogenesis. Endocr. Res. 28: 763-764.
6. Masuda, Y., et al. 2002. Isolation and identification of EG-VEGF/prokineticins as cognate ligands for two orphan G protein-coupled receptors. Biochem. Biophys. Res. Commun. 293: 396-402.
7. Lecouter, J., et al. 2004. EG-VEGF: a novel mediator of endocrine-specific angiogenesis, endothelial phenotype and function. Ann. N.Y. Acad. Sci. 1014: 50-57.

CHROMOSOMAL LOCATION

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

SOURCE

EG-VEGF (P-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of EG-VEGF of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-30345 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

EG-VEGF (P-15) is recommended for detection of EG-VEGF of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

EG-VEGF (P-15) is also recommended for detection of EG-VEGF in additional species, including equine, canine, bovine and avian.

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.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.