SANTA CRUZ BIOTECHNOLOGY, INC.

EGFL7 (C-17): sc-34412

BACKGROUND

Epidermal growth factor (EGF) repeat-containing proteins constitute an expanding family of proteins that are involved in several cellular activities, such as blood coagulation, fibrinolysis, cell adhesion and neural and vertebrate development. A human EGF repeat superfamily member that maps to human chromosome X, EGFL6 encodes a predicted signal peptide, suggesting that it is secreted. EGFL6 is expressed in brain and lung tumors and fetal tissues, but is generally absent from normal adult tissues. EGFL7 is a secreted protein that regulates vascular tubulogenesis *in vivo. In vitro,* EGFL7 inhibits platelet-derived growth factor induced smooth muscle cell migration and promotes adhesion of endothelial cells to the substrate. EGFL7 is expressed specifically by endothelial cells of the heart, lung and kidney.

REFERENCES

1. Soncin, F., et al. 2003. VE-statin, an endothelial repressor of smooth muscle cell migration. EMBO J. 22: 5700-5711.
2. Fitch, M.J., et al. 2004. EGFL7, a novel epidermal growth factor-domain gene expressed in endothelial cells. Dev. Dyn. 230: 316-324.
3. Parker, L.H., et al. 2004. The endothelial-cell-derived secreted factor EGFL7 regulates vascular tube formation. Nature 428: 754-758.
4. Campagnolo, L., et al. 2005. EGFL7 is a chemoattractant for endothelial cells and is upregulated in angiogenesis and arterial injury. Am. J. Pathol. 167: 275-284.
5. Caetano, B., et al. 2005. Expression and purification of recombinant vascular endothelial-statin. Protein Expr. Purif. 46: 136-142.
6. Jiang, W.D., et al. 2006. siRNA inhibits EGFL7 expression in human endothelial cell line HUVEC. Zhonghua Xin Xue Guan Bing Za Zhi 34: 643-646.
7. Schmidt, M., et al. EGFL7 regulates the collective migration of endothelial cells by restricting their spatial distribution. Development 134: 2913-2923.

CHROMOSOMAL LOCATION

Genetic locus: EGFL7 (human) mapping to 9q34.3; Egfl7 (mouse) mapping to 2 A3.

SOURCE

EGFL7 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of EGFL7 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-34412 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

EGFL7 (C-17) is recommended for detection of EGFL7 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).

EGFL7 (C-17) is also recommended for detection of EGFL7 in additional species, including equine.

Suitable for use as control antibody for EGFL7 siRNA (h): sc-45471, EGFL7 siRNA (m): sc-45472, EGFL7 shRNA Plasmid (h): sc-45471-SH, EGFL7 shRNA Plasmid (m): sc-45472-SH, EGFL7 shRNA (h) Lentiviral Particles: sc-45471-V and EGFL7 shRNA (m) Lentiviral Particles: sc-45472-V.

Molecular Weight of EGFL7: 30 kDa.

Positive Controls: ECV304 cell lysate: sc-2269.

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.

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.