SANTA CRUZ BIOTECHNOLOGY, INC.

EGFL7 (2H2): sc-101349

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. 2007. 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.

SOURCE

EGFL7 (2H2) is a mouse monoclonal antibody raised against EGFL7 of human origin.

PRODUCT

Each vial contains 100 µl ascites containing IgG_1 with < 0.1% sodium azide.

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.

APPLICATIONS

EGFL7 (2H2) is recommended for detection of EGFL7, 30 kDa of human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:100-1:5000), immunofluorescence (starting dilution to be determined by researcher, dilution range 1:50-1:2500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, dilution range 1:50-1:2500).

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

Molecular Weight of EGFL7: 30 kDa.

Positive Controls: ECV304 cell lysate: sc-2269.

SELECT PRODUCT CITATIONS

1. Philippin-Lauridant, G., et al. 2013. Expression of EGFL7 correlates with low-grade invasive lesions in human breast cancer. Int. J. Oncol. 42: 1367-1375.
2. Yamauchi, M., et al. 2016. Expression of epidermal growth factor-like domain 7 may be a predictive marker of the effect of neoadjuvant chemotherapy for locally advanced uterine cervical cancer. Oncol. Lett. 12: 5183-5189.
3. Wang, J., et al. 2017. EGFL7 participates in regulating biological behavior of growth hormone-secreting pituitary adenomas via Notch2/DLL3 signaling pathway. Tumour Biol. 39: 1010428317706203.
4. Liu, Q., et al. 2018. Role of EGFL7/EGFR-signaling pathway in migration and invasion of growth hormone-producing pituitary adenomas. Sci. China Life Sci. 61: 893-901.
5. Liu, Q., et al. 2018. Attenuation of EGFL7 expression inhibits growth hormone-producing pituitary adenomas growth and invasion. Hum. Gene Ther. E-published.
6. Sznurkowski, J.J., et al. 2022. Impact of activation of EGFL7 within microenvironment of high grade ovarian serous carcinoma on infiltration of $CD4^+$ and $CD8^+$ lymphocytes. Medicina 58: 588.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.