

EGFL3 (A-12): sc-137448

BACKGROUND

Epidermal growth factor (EGF) repeat-containing proteins constitute an expanding family of proteins that are involved in several cellular activities, including blood coagulation, fibrinolysis, cell adhesion, and neural and vertebrate development. In addition, this family encodes proteins that govern cellular proliferative responses. EGFL3 (epidermal growth factor-like protein 3), also known as MEGF6 (multiple epidermal growth factor-like domains protein 6), is a 1,541 amino acid secreted protein containing twenty-seven EGF-like domains and an EMI domain. Existing as two alternatively spliced isoforms, the gene encoding EGFL3 maps to human chromosome 1p36.32. The largest human chromosome, spanning about 260 million base pairs and making up 8% of the human genome, chromosome 1 contains about 3,000 genes. The rare aging disease Hutchinson-Gilford progeria, as well as Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome, are associated with chromosome 1.

REFERENCES

1. Watson, M.L., Kingsmore, S.F., Johnston, G.I., Siegelman, M.H., Le Beau, M.M., Lemons, R.S., Bora, N.S., Howard, T.A., Weissman, I.L., McEver, R.P., et al. 1990. Genomic organization of the selectin family of leukocyte adhesion molecules on human and mouse chromosome 1. *J. Exp. Med.* 172: 263-272.
2. Blackwood, D.H., Fordyce, A., Walker, M.T., St Clair, D.M., Porteous, D.J. and Muir, W.J. 2001. Schizophrenia and affective disorders—cosegregation with a translocation at chromosome 1q42 that directly disrupts brain-expressed genes: clinical and P300 findings in a family. *Am. J. Hum. Genet.* 69: 428-433
3. Weise, A., Starke, H., Mrasek, K., Claussen, U. and Liehr, T. 2005. New insights into the evolution of chromosome 1. *Cytogenet. Genome Res.* 108: 217-222.
4. Lans, H. and Hoeijmakers, J.H. 2006. Cell biology: aging nucleus gets out of shape. *Nature* 440: 32-34.
5. Gregory, S.G., Barlow, K.F., McLay, K.E., Kaul, R., Swarbreck, D., Dunham, A., Scott, C.E., Howe, K.L., Woodfine, K.C., Spencer, C.A., Jones, M.C., Gillson, C., Searle, S., Zhou, Y., Kokocinski, F., McDonald, L. et al. 2006. The DNA sequence and biological annotation of human chromosome 1. *Nature* 441: 315-321.
6. Hennah, W., Thomson, P., Peltonen, L. and Porteous, D. 2006. Genes and schizophrenia: beyond schizophrenia: the role of DISC-1 in major mental illness. *Schizophr. Bull.* 32: 409-416.
7. Marzin, Y., Jamet, D., Douet-Guilbert, N., Morel, F., Le Bris, M.J., Morice, P., Abgrall, J.F., Berthou, C. and De Braekeleer, M. 2006. Chromosome 1 abnormalities in multiple myeloma. *Anticancer Res.* 26: 953-959.
8. McClintock, D., Gordon, L.B. and Djabali, K. 2006. Hutchinson-Gilford progeria mutant Lamin A primarily targets human vascular cells as detected by an anti-Lamin A G608G antibody. *Proc. Natl. Acad. Sci. USA* 103: 2154-2159.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

CHROMOSOMAL LOCATION

Genetic locus: MEGF6 (human) mapping to 1p36.32; Megf6 (mouse) mapping to 4 E2.

SOURCE

EGFL3 (A-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of EGFL3 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-137448 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

EGFL3 (A-12) is recommended for detection of EGFL3 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); non cross-reactive with other EGFL family members.

Suitable for use as control antibody for EGFL3 siRNA (h): sc-88002, EGFL3 siRNA (m): sc-144596, EGFL3 shRNA Plasmid (h): sc-88002-SH, EGFL3 shRNA Plasmid (m): sc-144596-SH, EGFL3 shRNA (h) Lentiviral Particles: sc-88002-V and EGFL3 shRNA (m) Lentiviral Particles: sc-144596-V.

Molecular Weight of EGFL3 isoforms: 161/129 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.