

EGFL4 (N-16): sc-241402

BACKGROUND

EGFL4 (epidermal growth factor-like protein 4), also known as MEGF8 (multiple epidermal growth factor-like domains protein 8) or C19orf49, is a 2,845 amino acid single-pass type I membrane protein. EGFL4 contains 2 CUB domains, 5 EGF-like domains, 12 Kelch repeats, 4 laminin EGF-like domains and 7 PSI domains. Existing as two alternatively spliced isoforms, the gene encoding EGFL4 maps to human chromosome 19q13.2. Chromosome 19 consists of approximately 63 million bases, makes up over 2% of human genomic DNA, and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin superfamily members including the killer cell and leukocyte Ig-like receptors. Key genes for eye color and hair color also map to chromosome 19. Peutz-Jeghers syndrome, spinocerebellar ataxia type 6, the stroke disorder CADASIL, hypercholesterolemia and insulin-dependent diabetes have been linked to chromosome 19.

REFERENCES

- Zimmermann, W., et al. 1988. Chromosomal localization of the carcinoembryonic antigen gene family and differential expression in various tumors. *Cancer Res.* 48: 2550-2554.
- Nakayama, M., et al. 1998. Identification of high-molecular-weight proteins with multiple EGF-like motifs by motif-trap screening. *Genomics* 51: 27-34.
- Scott, J.N., et al. 1999. Cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy (CADASIL). *Can. J. Neurol. Sci.* 26: 311-312.
- Trettel, F., et al. 2000. A fine physical map of the CACNA1A gene region on 19p13.1-p13.2 chromosome. *Gene* 241: 45-50.
- Buchet-Poyau, K., et al. 2002. Search for the second Peutz-Jeghers syndrome locus: exclusion of the STK13, PRKCG, KLK10, and PSCD2 genes on chromosome 19 and the STK11IP gene on chromosome 2. *Cytogenet. Genome Res.* 97: 171-178.
- Moodie, S.J., et al. 2002. Analysis of candidate genes on chromosome 19 in coeliac disease: an association study of the KIR and LILR gene clusters. *Eur. J. Immunogenet.* 29: 287-291.
- Grimwood, J., et al. 2004. The DNA sequence and biology of human chromosome 19. *Nature* 428: 529-535.
- Parham, P. 2005. Immunogenetics of killer cell immunoglobulin-like receptors. *Mol. Immunol.* 42: 459-462.
- Brocke-Heidrich, K., et al. 2006. BCL3 is induced by IL-6 via Stat3 binding to intronic enhancer HS4 and represses its own transcription. *Oncogene* 25: 7297-7304.

CHROMOSOMAL LOCATION

Genetic locus: MEGF8 (human) mapping to 19q13.2; Megf8 (mouse) mapping to 7 A3.

RESEARCH USE

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

SOURCE

EGFL4 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of EGFL4 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-241402 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

EGFL4 (N-16) is recommended for detection of EGFL4 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.

EGFL4 (N-16) is also recommended for detection of EGFL4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for EGFL4 siRNA (h): sc-97270, EGFL4 siRNA (m): sc-144597, EGFL4 shRNA Plasmid (h): sc-97270-SH, EGFL4 shRNA Plasmid (m): sc-144597-SH, EGFL4 shRNA (h) Lentiviral Particles: sc-97270-V and EGFL4 shRNA (m) Lentiviral Particles: sc-144597-V.

Molecular Weight of EGFL4 isoform 1: 303 kDa.

Molecular Weight of EGFL4 isoform 2: 296 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 Blotting 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.