SANTA CRUZ BIOTECHNOLOGY, INC.

FAM69C (K-15): sc-84755

BACKGROUND

FAM69C, also known as C18orf51, is a 419 single-pass type II membrane protein that belongs to the FAM69 family. Localizing to the endoplasmic reticulum membrane, there are many cysteines in the lumenal domain that are likely involved in disulfide bonds. Alternatively spliced into two isoforms, the gene encoding FAM69C maps to human chromosome 18. Encoding over 300 genes, chromosome 18 contains about 76 million bases. Trisomy 18, or Edwards syndrome, is the second most common trisomy after Downs syndrome. Symptoms of Edwards syndrome include low birth weight, a variety of physical development defects, heart deformations and breathing difficulty. Translocation between chromosome 18 and 14 is the most common translocation in cancers, and occurs in follicular lymphomas. Niemann-Pick disease, hereditary hemorrhagic telangiectasia and erythropoietic protoporphyria are associated with chromosome 18. The TGFβ modulators, Smad2, Smad4 and Smad7 are encoded by chromosome 18.

REFERENCES

1. Carstea, E.D., et al. 1993. Linkage of Niemann-Pick disease type C to human chromosome 18. Proc. Natl. Acad. Sci. USA 90: 2002-2004.
2. Yoshikawa, T., et al. 1997. Isolation of chromosome 18-specific brain transcripts as positional candidates for bipolar disorder. Am. J. Med. Genet. 74: 140-149.
3. Petek, E., et al. 2003. Characterisation of a 19-year-old "long-term survivor" with Edwards syndrome. Genet. Couns. 14: 239-244.
4. Raghavan, S.C., et al. 2004. A non-B-DNA structure at the Bcl-2 major breakpoint region is cleaved by the RAG complex. Nature 428: 88-93.
5. Grosso, S., et al. 2005. Chromosome 18 aberrations and epilepsy: a review. Am. J. Med. Genet. A 134: 88-94.
6. Aurizi, C., et al. 2007. Heterogeneity of mutations in the ferrochelatase gene in Italian patients with erythropoietic protoporphyria. Mol. Genet. Metab. 90: 402-407.

CHROMOSOMAL LOCATION

Genetic locus: FAM69C (human) mapping to 18q22.3; Fam69c (mouse) mapping to 18 E4.

SOURCE

FAM69C (K-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of FAM69C of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-84755 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

FAM69C (K-15) is recommended for detection of FAM69C 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).

FAM69C (K-15) is also recommended for detection of FAM69C in additional species, including canine, bovine and avian.

Suitable for use as control antibody for FAM69C siRNA (h): sc-72686, B230399E16Rik siRNA (m): sc-141443, FAM69C shRNA Plasmid (h): sc-72686-SH, B230399E16Rik shRNA Plasmid (m): sc-141443-SH, FAM69C shRNA (h) Lentiviral Particles: sc-72686-V and B230399E16Rik shRNA (m) Lentiviral Particles: sc-141443-V.

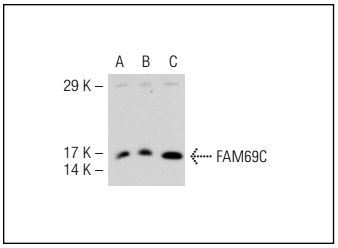
Molecular Weight of FAM69C isoforms: 46/14 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, WI-38 whole cell lysate: sc-364260 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



FAM69C (K-15): sc-84755. Western blot analysis of FAM69C expression in IMR-32 (**A**), WI-38 (**B**) and NTERA-2 cl.D1 (**C**) whole cell lysates.

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.