

FAM53C (C-15): sc-242752

BACKGROUND

With 181 million base pairs encoding around 1,000 genes, chromosome 5 is about 6% of human genomic DNA. It is associated with Cockayne syndrome through the ERCC8 gene and familial adenomatous polyposis through the adenomatous polyposis coli (APC) tumor suppressor gene. Treacher Collins syndrome is also chromosome 5 associated and is caused by insertions or deletions within the TCOF1 gene. Deletion of the p arm of chromosome 5 leads to Cri-du-chat syndrome. Deletion of 5q or chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome. The FAM53C gene product has been provisionally designated FAM53C pending further characterization.

REFERENCES

- Dixon, M.J., Read, A.P., Donnai, D., Colley, A., Dixon, J. and Williamson, R. 1991. The gene for Treacher Collins syndrome maps to the long arm of chromosome 5. *Am. J. Hum. Genet.* 49: 17-22.
- Saltman, D.L., Dolganov, G.M., Warrington, J.A., Wasmuth, J.J. and Lovett, M. 1993. A physical map of 15 loci on human chromosome 5q23-q33 by two-color fluorescence *in situ* hybridization. *Genomics* 16: 726-732.
- Kadmon, M., Tandara, A. and Herfarth, C. 2001. Duodenal adenomatosis in familial adenomatous polyposis coli. A review of the literature and results from the Heidelberg Polyposis Register. *Int. J. Colorectal Dis.* 16: 63-75.
- South, S.T., Swensen, J.J., Maxwell, T., Rope, A., Brothman, A.R. and Chen, Z. 2006. A new genomic mechanism leading to Cri-du-chat syndrome. *Am. J. Med. Genet. A* 140: 2714-2720.
- Aretz, S., Stienen, D., Friedrichs, N., Stemmler, S., Uhlhaas, S., Rahner, N., Propping, P. and Friedl, W. 2007. Somatic APC mosaicism: a frequent cause of familial adenomatous polyposis (FAP). *Hum. Mutat.* 28: 985-992.
- Cleaver, J.E., Hefner, E., Laposa, R.R., Karentz, D. and Marti, T. 2007. Cockayne syndrome exhibits dysregulation of p21 and other gene products that may be independent of transcription-coupled repair. *Neuroscience* 145: 1300-1308.

CHROMOSOMAL LOCATION

Genetic locus: FAM53C (human) mapping to 5q31.2; Fam53c (mouse) mapping to 18 B1.

SOURCE

FAM53C (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of FAM53C 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-242752 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

FAM53C (C-15) is recommended for detection of FAM53C of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 FAM53B.

FAM53C (C-15) is also recommended for detection of FAM53C in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for FAM53C siRNA (h): sc-91786, FAM53C siRNA (m): sc-108834, FAM53C shRNA Plasmid (h): sc-91786-SH, FAM53C shRNA Plasmid (m): sc-108834-SH, FAM53C shRNA (h) Lentiviral Particles: sc-91786-V and FAM53C shRNA (m) Lentiviral Particles: sc-108834-V.

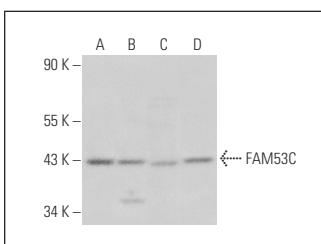
Molecular Weight of FAM53C: 43 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, HEK293 whole cell lysate: sc-45136 or PC-12 cell lysate: sc-2250.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



FAM53C (C-15): sc-242752. Western blot analysis of FAM53C expression in NIH/3T3 (A), HEK293 (B), K-562 (C) and PC-12 (D) 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.