

FAM13C1 (F-4): sc-515696

BACKGROUND

FAM13C1 (family with sequence similarity 13, member C), also known as FAM13C, is a 585 amino acid protein that belongs to the FAM13 family. Existing as 3 alternatively spliced isoforms, the gene encoding FAM13C1 maps to human chromosome 10, which contains over 800 genes, 135 million nucleotides and makes up nearly 4.5% of the human genome. PTEN is an important tumor suppressor gene located on chromosome 10 and, when defective, causes a genetic predisposition to cancer development known as Cowden syndrome. The chromosome 10 encoded gene ERCC6 is important for DNA repair and is linked to Cockayne syndrome which is characterized by extreme photosensitivity and premature aging. Tetrahydrobiopterin deficiency and a number of syndromes involving defective skull and facial bone fusion are also linked to chromosome 10. As with most trisomies, trisomy 10 is rare and is deleterious.

REFERENCES

1. Fryns, J.P., et al. 1991. Apparent late-onset Cockayne syndrome and interstitial deletion of the long arm of chromosome 10 [del(10)(q11.23q21.2)]. *Am. J. Med. Genet.* 40: 343-344.
2. Troelstra, C., et al. 1992. Localization of the nucleotide excision repair gene ERCC6 to human chromosome 10q11-q21. *Genomics* 12: 745-749.
3. Grupe, A., et al. 2006. A scan of chromosome 10 identifies a novel locus showing strong association with late-onset Alzheimer disease. *Am. J. Hum. Genet.* 78: 78-88.
4. Teresi, R.E., et al. 2007. Cowden syndrome-affected patients with PTEN promoter mutations demonstrate abnormal protein translation. *Am. J. Hum. Genet.* 81: 756-767.
5. Blumenthal, G.M. and Dennis, P.A. 2008. PTEN hamartoma tumor syndromes. *Eur. J. Hum. Genet.* 16: 1289-1300.
6. Yin, Y. and Shen, W.H. 2008. PTEN: a new guardian of the genome. *Oncogene* 27: 5443-5453.
7. Laugel, V., et al. 2010. Mutation update for the CSB/ERCC6 and CSA/ERCC8 genes involved in Cockayne syndrome. *Hum. Mutat.* 31: 113-126.

CHROMOSOMAL LOCATION

Genetic locus: FAM13C (human) mapping to 10q21.1; Fam13c (mouse) mapping to 10 B5.3.

SOURCE

FAM13C1 (F-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 138-156 within an internal region of FAM13C1 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

FAM13C1 (F-4) is recommended for detection of FAM13C1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for FAM13C1 siRNA (h): sc-90435, FAM13C1 siRNA (m): sc-145029, FAM13C1 shRNA Plasmid (h): sc-90435-SH, FAM13C1 shRNA Plasmid (m): sc-145029-SH, FAM13C1 shRNA (h) Lentiviral Particles: sc-90435-V and FAM13C1 shRNA (m) Lentiviral Particles: sc-145029-V.

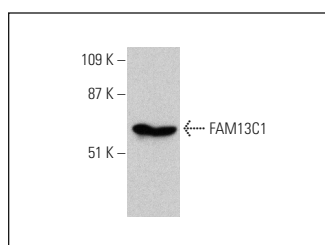
Molecular Weight of FAM13C1: 66 kDa.

Positive Controls: LADMAC whole cell lysate: sc-364189 or SUP-T1 whole cell lysate: sc-364796.

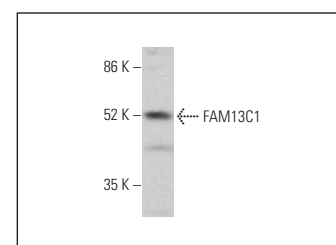
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



FAM13C1 (F-4): sc-515696. Western blot analysis of FAM13C1 expression in LADMAC whole cell lysate.



FAM13C1 (F-4): sc-515696. Western blot analysis of FAM13C1 expression in SUP-T1 whole cell lysate.

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 for detailed protocols and support products.