

FAM13C1 (E-5): sc-376707

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., et al. 2008. PTEN hamartoma tumor syndromes. *Eur. J. Hum. Genet.* 16: 1289-1300.

CHROMOSOMAL LOCATION

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

SOURCE

FAM13C1 (E-5) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of FAM13C1 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FAM13C1 (E-5) is available conjugated to agarose (sc-376707 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376707 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376707 PE), fluorescein (sc-376707 FITC), Alexa Fluor® 488 (sc-376707 AF488), Alexa Fluor® 546 (sc-376707 AF546), Alexa Fluor® 594 (sc-376707 AF594) or Alexa Fluor® 647 (sc-376707 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376707 AF680) or Alexa Fluor® 790 (sc-376707 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

FAM13C1 (E-5) 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.

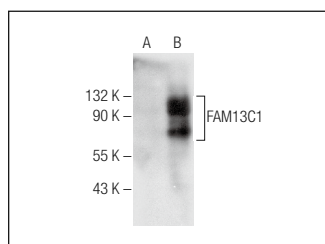
Molecular Weight of FAM13C1: 66 kDa.

Positive Controls: FAM13C1 (h2): 293T Lysate: sc-175463 or mouse liver extract: sc-2256.

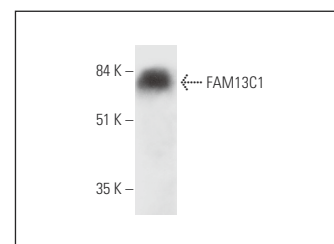
RECOMMENDED SUPPORT REAGENTS

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 A/G PLUS-Agarose: sc-2003 (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 (E-5): sc-376707. Western blot analysis of FAM13C1 expression in non-transfected: sc-117752 (A) and human FAM13C1 transfected: sc-175463 (B) 293T whole cell lysates.



FAM13C1 (E-5): sc-376707. Western blot analysis of FAM13C1 expression in mouse liver tissue extract.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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

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