

FAM107B (D-4): sc-515361

BACKGROUND

FAM107B is a 131 amino acid protein that is encoded by a gene that maps to human chromosome 10, which contains over 800 genes and 135 million nucleotides, making 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. Frysns, 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. Thöny, B., et al. 1994. Chromosomal location of two human genes encoding tetrahydrobiopterin-metabolizing enzymes: 6-pyruvoyl-tetrahydropterin synthase maps to 11q22.3-q23.3, and pterin-4 α -carbinolamine dehydratase maps to 10q22. *Genomics* 19: 365-368.
3. Horibata, K., et al. 2004. Complete absence of Cockayne syndrome group B gene product gives rise to UV-sensitive syndrome but not Cockayne syndrome. *Proc. Natl. Acad. Sci. USA* 101: 15410-15415.

CHROMOSOMAL LOCATION

Genetic locus: FAM107B (human) mapping to 10p13; Fam107b (mouse) mapping to 2 A1.

SOURCE

FAM107B (D-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 113-131 at the C-terminus of FAM107B of human origin.

PRODUCT

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

FAM107B (D-4) is available conjugated to agarose (sc-515361 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515361 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515361 PE), fluorescein (sc-515361 FITC), Alexa Fluor® 488 (sc-515361 AF488), Alexa Fluor® 546 (sc-515361 AF546), Alexa Fluor® 594 (sc-515361 AF594) or Alexa Fluor® 647 (sc-515361 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515361 AF680) or Alexa Fluor® 790 (sc-515361 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515361 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

FAM107B (D-4) is recommended for detection of FAM107B of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 FAM107B siRNA (h): sc-90414, FAM107B siRNA (m): sc-145014, FAM107B shRNA Plasmid (h): sc-90414-SH, FAM107B shRNA Plasmid (m): sc-145014-SH, FAM107B shRNA (h) Lentiviral Particles: sc-90414-V and FAM107B shRNA (m) Lentiviral Particles: sc-145014-V.

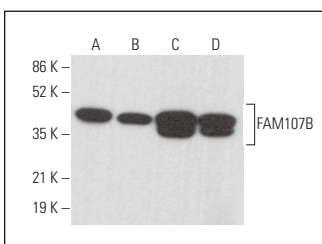
Molecular Weight of FAM107B isoforms: 16/35 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, RAW 264.7 whole cell lysate: sc-2211 or human lymph node extract: sc-363768.

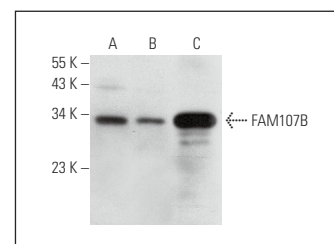
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



FAM107B (D-4): sc-515361. Western blot analysis of FAM107B expression in BYDP (A), SUP-T1 (B), Ramos (C) and MOLT-4 (D) whole cell lysates.



FAM107B (D-4): sc-515361. Western blot analysis of FAM107B expression in RAW 264.7 (A) and Jurkat (B) whole cell lysates and human lymph node tissue extract (C).

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.