

FAM175B (Q-14): sc-164740

BACKGROUND

The BRISC (Brcc36-containing isopeptidase) complex is a multiprotein complex that functions as a four-subunit deubiquinating enzyme. Composed of FAM175B, BRCC3, BRE, C19orf62, the BRISC complex is a specifically cleaves "Lys-63"-linked polyubiquitin. FAM175B, also known as BRISC complex subunit Abro1 and Abraxas brother protein 1, is a 415 amino acid protein that may act as a central scaffold protein that assembles the various components of the BRISC complex. The gene encoding FAM175B 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.

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. 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. Wang, Y., et al. 2006. Tyrosine phosphorylated Par3 regulates epithelial tight junction assembly promoted by EGFR signaling. *EMBO J.* 25: 5058-5070.
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. Wang, B., et al. 2007. Abraxas and RAP80 form a BRCA1 protein complex required for the DNA damage response. *Science* 316: 1194-1198.

CHROMOSOMAL LOCATION

Genetic locus: FAM175B (human) mapping to 10q26.13; Fam175b (mouse) mapping to 7 F3.

SOURCE

FAM175B (Q-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FAM175B of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-164740 P, (100 μ g 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

FAM175B (Q-14) is recommended for detection of FAM175B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with other KIAA family members.

Suitable for use as control antibody for FAM175B siRNA (h): sc-90606, FAM175B siRNA (m): sc-141909, FAM175B shRNA Plasmid (h): sc-90606-SH, FAM175B shRNA Plasmid (m): sc-141909-SH, FAM175B shRNA (h) Lentiviral Particles: sc-90606-V and FAM175B shRNA (m) Lentiviral Particles: sc-141909-V.

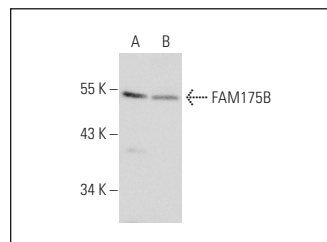
Molecular Weight of FAM175B: 50 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225 or HeLa whole cell lysate: sc-2200.

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



FAM175B (Q-14): sc-164740. Western blot analysis of FAM175B expression in CCRF-CEM (A) and HeLa (B) 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.