SANTA CRUZ BIOTECHNOLOGY, INC.

FAM65B (3J7): sc-134289



BACKGROUND

FAM65B, also known as C6orf32, DIFF28 or PL48, is a 1,068 amino acid protein that belongs to the FAM65 family. FAM65B exists as two alternatively spliced isoforms; isoform 1 is found in brain while isoform 2 is expressed in fetal primary myoblasts during differentiation. Isoform 2 may be important for cellular differentiation, filopodia formation and cytoskeletal rearrangement. Cells missing isoform 2 have a large reduction of myotube formation, yet overexpression induces filopodial formation. The gene encoding FAM65B maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, Porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

REFERENCES

- Brunner, H.G., et al. 1994. A Stickler syndrome gene is linked to chromosome 6 near the COL11A2 gene. Hum. Mol. Genet. 3: 1561-1564.
- Nagase, T., et al. 1997. Prediction of the coding sequences of unidentified human genes. VII. The complete sequences of 100 new cDNA clones from brain which can code for large proteins *in vitro*. DNA Res. 4: 141-150.
- Dakour, J., et al. 1997. PL48: a novel gene associated with cytotrophoblast and lineage-specific HL-60 cell differentiation. Gene 185: 153-157.
- Cesari, R., et al. 2003. Parkin, a gene implicated in autosomal recessive juvenile parkinsonism, is a candidate tumor suppressor gene on chromosome 6q25-q27. Proc. Natl. Acad. Sci. USA 100: 5956-5961.
- 5. Yoon, S., et al. 2007. C60RF32 is upregulated during muscle cell differentiation and induces the formation of cellular filopodia. Dev. Biol. 301: 70-81.
- Bläker, H., et al. 2008. Recurrent deletions at 6q in early age of onset non-HNPCC- and non-FAP-associated intestinal carcinomas. Evidence for a novel cancer susceptibility locus at 6q14-q22. Genes Chromosomes Cancer 47: 159-164.
- Mayya, V., et al. 2009. Quantitative phosphoproteomic analysis of T cell receptor signaling reveals system-wide modulation of protein-protein interactions. Sci. Signal. 2: ra46.
- Fan, J., et al. 2010. Linkage disequilibrium mapping of the chromosome 6q21-22.31 bipolar I disorder susceptibility locus. Am. J. Med. Genet. B Neuropsychiatr. Genet. 153B: 29-37.
- 9. Jalil, S., et al. 2010. Associations among behavior-related susceptibility factors in porphyria cutanea tarda. Clin. Gastroenterol. Hepatol. 8: 297-302, 302.e1.

CHROMOSOMAL LOCATION

Genetic locus: FAM65B (human) mapping to 6p22.3.

SOURCE

FAM65B (3J7) is a mouse monoclonal antibody raised against recombinant C6orf32 protein of human origin.

PRODUCT

Each vial contains 100 μg lgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

FAM65B (3J7) is recommended for detection of FAM65B (full-length protein) of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for FAM65B siRNA (h): sc-95357, FAM65B shRNA Plasmid (h): sc-95357-SH and FAM65B shRNA (h) Lentiviral Particles: sc-95357-V.

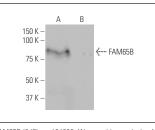
Molecular Weight of FAM65B: 119/66 kDa.

Positive Controls: human FAM65B transfected 293T whole cell lysate.

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).

DATA



FAM65B (3J7): sc-134289. Western blot analysis of FAM65B expression in human FAM65B transfected (A) and non-transfected (B) 293T 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.

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.