SANTA CRUZ BIOTECHNOLOGY, INC.

FAM164C (V-19): sc-242708

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

FAM164C, also known as ZC2HC1C (zinc finger C2HC domain-containing protein 1C), is a 456 amino acid protein that belongs to the ZC2HC1 family. FAM164C is alternatively spliced into two isoforms and is encoded by a gene that maps to human chromosome 14. Chromosome 14 houses over 700 genes and comprises nearly 3.5% of the human genome. Chromosome 14 encodes the presinilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease (AD). The SERPINA1 gene is also located on chromosome 14 and, when defective, leads to the genetic disorder α1-antitrypsin deficiency, which is characterized by severe lung complications and liver dysfunction.

REFERENCES

1. Heilig, R., Eckenberg, R., Petit, J., Fonknechten, N., Da Silva, C., Cattolico, L., Levy, M., Barbe, V., de Berardinis, V., Ureta-Vidal, A., Pelletier, E., Vico, V., Anthouard, V., Rowen, L., Madan, A., Qin, S., Sun, H., Du, H., Pepin, K., Artiguenave, F., Robert, C., Cruaud, C., et al. 2003. The DNA sequence and analysis of human chromosome 14. Nature 421: 601-607.
2. Avramopoulos, D., Fallin, M.D. and Bassett, S.S. 2005. Linkage to chromosome 14q in Alzheimer's disease (AD) patients without psychotic symptoms. Am. J. Med. Genet. B Neuropsychiatr. Genet. 132B: 9-13.
3. Larner, A.J. and Doran, M. 2009. Genotype-phenotype relationships of presenilin-1 mutations in Alzheimer's disease: an update. J. Alzheimers Dis. 17: 259-265.
4. Topic, A., Alempijevic, T., Milutinovic, A.S. and Kovacevic, N. 2009. α-1-antitrypsin phenotypes in adult liver disease patients. Ups. J. Med. Sci. 114: 228-234.

CHROMOSOMAL LOCATION

Genetic locus: ZC2HC1C (human) mapping to 14q24.3; Fam164c (mouse) mapping to 12 D2.

SOURCE

FAM164C (V-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FAM164C of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-242708 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

FAM164C (V-19) is recommended for detection of FAM164C of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with FAM164A or FAM164B.

Suitable for use as control antibody for FAM164C siRNA (h): sc-92420, FAM164C siRNA (m): sc-108827, FAM164C shRNA Plasmid (h): sc-92420-SH, FAM164C shRNA Plasmid (m): sc-108827-SH, FAM164C shRNA (h) Lentiviral Particles: sc-92420-V and FAM164C shRNA (m) Lentiviral Particles: sc-108827-V.

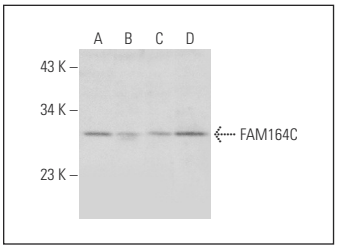
Molecular Weight of FAM164C: 31 kDa.

Positive Controls: U-87 MG cell lysate: sc-2411, U-698-M whole cell lysate: sc-364799 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



FAM164C (V-19): sc-242708. Western blot analysis of FAM164C expression in U-87 MG (**A**), U-698-M (**B**), HeLa (**C**) and F9 (**D**) whole cell lysates.

RESEARCH USE

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