SANTA CRUZ BIOTECHNOLOGY, INC.

C21orf59 (L-20): sc-83557

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The Power to Question

BACKGROUND

The smallest of the human chromosomes, 21 makes up about 1.5% of the human genome. Chromosome 21 contains nearly 300 genes and 47 million base pairs. Down syndrome, also known as trisomy 21, is the disease most commonly associated with chromosome 21. Alzheimer's disease, Jervell and Lange-Nielsen syndrome and amyotrophic lateral sclerosis are also associated with chromosome 21. Translocations are found to occur between chromosome 21 and 8, and chromosome 21 and 12, in certain leukemias. C21orf59, also known as C21orf48, is a 290 amino acid protein and its gene product has been provisionally designated C21orf59 pending further characterization.

REFERENCES

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3. Müller, S., et al. 2000. Molecular cytogenetic dissection of human chromosomes 3 and 21 evolution. Proc. Natl. Acad. Sci. USA 97: 206-211.
4. Mao, R., et al. 2005. Primary and secondary transcriptional effects in the developing human Down syndrome brain and heart. Genome Biol. 6: R107.
5. Robakis, N.K. 2006. The discovery and mapping to chromosome 21 of the Alzheimer's amyloid gene: history revised. J. Alzheimers Dis. 10: 453-455.
6. Sun, X., et al. 2006. BACE2, as a novel APP θ-secretase, is not responsible for the pathogenesis of Alzheimer's disease in Down syndrome. FASEB J. 20: 1369-1376.
7. Aït Yahya-Graison, E., et al. 2007. Classification of human chromosome 21 gene-expression variations in Down syndrome: impact on disease phenotypes. Am. J. Hum. Genet. 81: 475-491.
8. Peterson, L.F., et al. 2007. Acute myeloid leukemia with the 8q22;21q22 translocation: secondary mutational events and alternative t(8;21) transcripts. Blood 110: 799-805.
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CHROMOSOMAL LOCATION

Genetic locus: C21orf59 (human) mapping to 21q22.1.

SOURCE

C21orf59 (L-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of C21orf59 of human origin.

STORAGE

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

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-83557 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

C21orf59 (L-20) is recommended for detection of C21orf59 of 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).

C21orf59 (L-20) is also recommended for detection of C21orf59 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for C21orf59 siRNA (h): sc-91375, C21orf59 shRNA Plasmid (h): sc-91375-SH and C21orf59 shRNA (h) Lentiviral Particles: sc-91375-V.

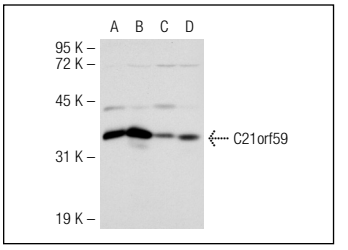
Molecular Weight of C21orf59: 33 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or PC-3 cell lysate: sc-2220.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



C21orf59 (L-20): sc-83557. Western blot analysis of C21orf59 expression in HeLa (**A**), K-562 (**B**), PC-3 (**C**) and LNCaP (**D**) whole cell lysates.

RESEARCH USE

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