SANTA CRUZ BIOTECHNOLOGY, INC.

C21orf62 (T-14): sc-83562

SANTA CRUZ BIOTECHNOLOGY

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. The C21orf62 gene product has been provisionally designated C21orf62 pending further characterization.

REFERENCES

1. Tyson, J., et al. 1997. IsK and KvLQT1: mutation in either of the two subunits of the slow component of the delayed rectifier potassium channel can cause Jervell and Lange-Nielsen syndrome. Hum. Mol. Genet. 6: 2179-2185.
2. Müller, S., et al. 2000. Molecular cytogenetic dissection of human chromosomes 3 and 21 evolution. Proc. Natl. Acad. Sci. USA 97: 206-211.
3. Mao, R., et al. 2005. Primary and secondary transcriptional effects in the developing human Down syndrome brain and heart. Genome Biol. 6: R107.
4. 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.
5. 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.
6. 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.
7. 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.
8. Ryoo, S.R., et al. 2007. DYRK1A-mediated hyperphosphorylation of Tau: a functional link between Down syndrome and Alzheimer's disease. J. Biol. Chem. 282: 34850-34857.

CHROMOSOMAL LOCATION

Genetic locus: C21orf62 (human) mapping to 21q22.11; 4932438H23Rik (mouse) mapping to 16 C3.3.

SOURCE

C21orf62 (T-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of C21orf62 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-83562 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

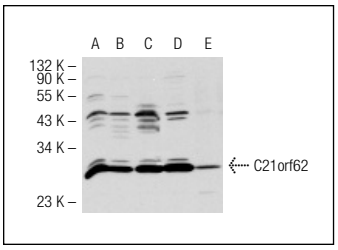
APPLICATIONS

C21orf62 (T-14) is recommended for detection of C21orf62 of human origin, 4932438H23Rik of mouse origin and the corresponding rat homolog 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

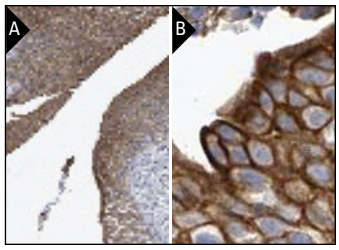
Suitable for use as control antibody for C21orf62 siRNA (h): sc-91509, 4932438H23Rik siRNA (m): sc-140255, C21orf62 shRNA Plasmid (h): sc-91509-SH, 4932438H23Rik shRNA Plasmid (m): sc-140255-SH, C21orf62 shRNA (h) Lentiviral Particles: sc-91509-V and 4932438H23Rik shRNA (m) Lentiviral Particles: sc-140255-V.

Positive Controls: SK-N-MC cell lysate: sc-2237, HeLa whole cell lysate: sc-2200 or MIA PaCa-2 cell lysate: sc-2285.

DATA



C21orf62 (T-14): sc-83562. Western blot analysis of C21orf62 expression in SK-N-MC (**A**), HeLa (**B**), MIA PaCa-2 (**C**) and MES-SA/Dx5 (**D**) whole cell lysates and mouse pancreas tissue extract (**E**).



C21orf62 (T-14): sc-83562. Immunoperoxidase staining of formalin fixed, paraffin-embedded human Urinary bladder showing membrane staining of urothelial cells at low (**A**) and high (**B**) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

RESEARCH USE

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