SANTA CRUZ BIOTECHNOLOGY, INC.

C14orf101 (Z-19): sc-101902

BACKGROUND

Chromosome 14 contains about 700 genes and 106 million base pairs and makes up about 3.5% of human cellular DNA. Chromosome 14 encodes the Presenilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease. The SERPINA1 gene is located on chromosome 14 and when defective leads to the genetic disorder α1-antitrypsin deficiency. This disorder is characterized by severe lung complications and liver dysfunction. Notably, the immunoglobulin heavy chain locus is found on chromosome 14 and has been identified as a fusion with the chromosome 19 encoded protein Bcl-3 in the (14;19) translocations found in a variety of B cell malignancies.

REFERENCES

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2. Godbolt, A.K., et al. 2004. A Presenilin 1 R278I mutation presenting with language impairment. Neurology 63: 1702-1704.
3. Stolk, J., et al. 2006. α1-antitrypsin deficiency: current perspective on research, diagnosis, and management. Int. J. Chron. Obstruct. Pulmon. Dis. 1: 151-160.
4. Vetrivel, K.S., et al. 2006. Pathological and physiological functions of presenilins. Mol. Neurodegener. 1: 4.
5. Albani, D., et al. 2007. Presenilin 1 mutation E318G and familial Alzheimer's disease in the Italian population. Neurobiol. Aging 28: 1682-1688.
6. Cruz, P.E., et al. 2007. The promise of gene therapy for the treatment of α-1 antitrypsin deficiency. Pharmacogenomics 8: 1191-1198.
7. Filley, C.M., et al. 2007. The genetics of very early onset Alzheimer disease. Cogn. Behav. Neurol. 20: 149-156.
8. Martín-Subero, J.I., et al. 2007. A comprehensive genetic and histopathologic analysis identifies two subgroups of B cell malignancies carrying a t(14;19)(q32;q13) or variant Bcl-3-translocation. Leukemia 21: 1532-1544.
9. Micci, F., et al. 2007. Molecular cytogenetic characterization of t(14;19)(q32;p13), a new recurrent translocation in B cell malignancies. Virchows Arch. 450: 559-565.

CHROMOSOMAL LOCATION

Genetic locus: C14orf101 (human) mapping to 14q23.1.

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.

SOURCE

C14orf101 (Z-19) is a purified rabbit polyclonal antibody raised against C14orf101 of human origin.

PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

C14orf101 (Z-19) is recommended for detection of C14orf101 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for C14orf101 siRNA (h): sc-92327, C14orf101 shRNA Plasmid (h): sc-92327-SH and C14orf101 shRNA (h) Lentiviral Particles: sc-92327-V.

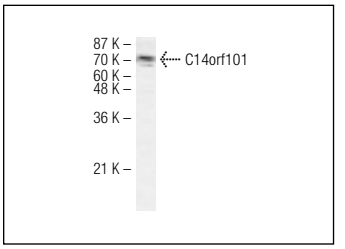
Molecular Weight of C14orf101: 79 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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).

DATA



C14orf101 (Z-19): sc-101902. Western blot analysis of C14orf101 expression in Hep G2 whole cell lysate.

RESEARCH USE

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