SANTA CRUZ BIOTECHNOLOGY, INC.

ANGEL1 (N-15): sc-241801

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ANGEL1 (angel homolog 1), also known as KIAA0759, is a 670 amino acid protein belonging to the CKR-4 protein family. ANGEL1 is encoded by a gene located on human chromosome 14, which contains about 700 genes and 106 million base pairs, making up about 3.5% of human cellular DNA. Chromosome 14 encodes the presinilin 1 (PSEN1) gene, which is one of 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 on chromosome 14 and its fusion via translocation with the chromosome 19 encoded protein BCL3 may be related to B-cell malignancies.

REFERENCES

1. Heilig, R., et al. 2003. The DNA sequence and analysis of human chromosome 14. Nature 421: 601-607.
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 BCL3-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: ANGEL1 (human) mapping to 14q24.3; Angel1 (mouse) mapping to 12 D2.

SOURCE

ANGEL1 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ANGEL1 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 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-241801 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ANGEL1 (N-15) is recommended for detection of ANGEL1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 ANGEL2.

ANGEL1 (N-15) is also recommended for detection of ANGEL1 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for ANGEL1 siRNA (h): sc-92440, ANGEL1 siRNA (m): sc-141059, ANGEL1 shRNA Plasmid (h): sc-92440-SH, ANGEL1 shRNA Plasmid (m): sc-141059-SH, ANGEL1 shRNA (h) Lentiviral Particles: sc-92440-V and ANGEL1 shRNA (m) Lentiviral Particles: sc-141059-V.

Molecular Weight of ANGEL1: 75 kDa.

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) 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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.