SANTA CRUZ BIOTECHNOLOGY, INC.

LRP10 (S-16): sc-243325

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

LRP10 (low density lipoprotein receptor-related protein 10) is a 713 amino acid single-pass type I membrane protein that contains 2 CUB domains and 4 LDL-receptor class A domains. Expressed in placenta, liver, lung, colon, spleen, kidney, heart and skeletal muscle, LRP10 functions as a probable receptor that may be involved in signal transduction, as well as in the internalization of lipophilic molecules. Multiple isoforms of LRP10 exist due to alternative splicing events. The gene encoding LRP10 maps to human chromosome 14, which 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. Sugiyama, T., et al. 2000. A novel low-density lipoprotein receptor-related protein mediating cellular uptake of apolipoprotein E-enriched β-VLDL *in vitro*. Biochemistry 39: 15817-15825.
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. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 609921. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
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 α1 antitrypsin deficiency. Pharmacogenomics 8: 1191-1198.
7. 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.
8. 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.
9. Filley, C.M., et al. 2007. The genetics of very early onset Alzheimer disease. Cogn. Behav. Neurol. 20: 149-156.

CHROMOSOMAL LOCATION

Genetic locus: LRP10 (human) mapping to 14q11.2; Lrp10 (mouse) mapping to 14 C2.

SOURCE

LRP10 (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of LRP10 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-243325 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LRP10 (S-16) is recommended for detection of LRP10 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 other LRP family members.

LRP10 (S-16) is also recommended for detection of LRP10 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for LRP10 siRNA (h): sc-92081, LRP10 siRNA (m): sc-149043, LRP10 shRNA Plasmid (h): sc-92081-SH, LRP10 shRNA Plasmid (m): sc-149043-SH, LRP10 shRNA (h) Lentiviral Particles: sc-92081-V and LRP10 shRNA (m) Lentiviral Particles: sc-149043-V.

Molecular Weight of LRP10: 76 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.

STORAGE

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

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.