SREC-II (N-14): sc-86881



The Power to Question

BACKGROUND

SREC-II (scavenger receptor expressed by endothelial cells 2 protein), also known as SCARF2 (scavenger receptor class F, member 2), NSR1 or SREPCR, is an 866 amino acid single-pass type I membrane protein that contains six EGF-like domains. Expressed predominately in endothelial cells found in lung, heart, spleen, placenta, ovary and small intestine, SREC-II is thought to function as an adhesion protein that mediates heterophilic and homophilic interactions via extracellular domains. The gene encoding SREC-II maps to human chromosome 22, which houses over 500 genes and is the second smallest human chromosome. Mutations in several of the genes that map to chromosome 22 are involved in the development of Phelan-McDermid syndrome, neurofibromatosis type 2, autism and schizophrenia. Additionally, translocations between chromosomes 9 and 22 may lead to the formation of the Philadelphia chromosome and the subsequent production of the novel fusion protein Bcr-AbI, a potent cell proliferation activator found in several types of leukemias.

REFERENCES

- Gilbert, F. 1998. Disease genes and chromosomes: disease maps of the human genome. Chromosome 22. Genet. Test. 2: 89-97.
- Schwab, S.G. and Wildenauer, D.B. 1999. Chromosome 22 workshop report. Am. J. Med. Genet. 88: 276-278.
- Ishii, J., et al. 2002. SREC-II, a new member of the scavenger receptor type F family, *trans*-interacts with SREC-I through its extracellular domain. J. Biol. Chem. 277: 39696-39702.
- 4. Arinami, T. 2006. Analyses of the associations between the genes of 22q11 deletion syndrome and schizophrenia. J. Hum. Genet. 51: 1037-1045.
- Paylor, R., et al. 2006. Tbx1 haploinsufficiency is linked to behavioral disorders in mice and humans: implications for 22q11 deletion syndrome. Proc. Natl. Acad. Sci. USA 103: 7729-7734.
- 6. Zheng, X., et al. 2006. Bcr and its mutants, the reciprocal t(9;22)-associated Abl/Bcr fusion proteins, differentially regulate the cytoskeleton and cell motility. BMC Cancer 6: 262.
- Ahronowitz, I., et al. 2007. Mutational spectrum of the NF2 gene: a metaanalysis of 12 years of research and diagnostic laboratory findings. Hum. Mutat. 28: 1-12.
- Hay, B.N. 2007. Deletion 22q11: spectrum of associated disorders. Semin. Pediatr. Neurol. 14: 136-139.

CHROMOSOMAL LOCATION

Genetic locus: SCARF2 (human) mapping to 22q11.21; Scarf2 (mouse) mapping to 16 A3.

SOURCE

SREC-II (N-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of SREC-II of human origin.

RESEARCH USE

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

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-86881 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SREC-II (N-14) is recommended for detection of SREC-II 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 SREC.

Suitable for use as control antibody for SREC-II siRNA (h): sc-76577, SREC-II siRNA (m): sc-153819, SREC-II shRNA Plasmid (h): sc-76577-SH, SREC-II shRNA Plasmid (m): sc-153819-SH, SREC-II shRNA (h) Lentiviral Particles: sc-76577-V and SREC-II shRNA (m) Lentiviral Particles: sc-153819-V.

Molecular Weight of SREC-II: 92 kDa.

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) 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.

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.

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