SANTA CRUZ BIOTECHNOLOGY, INC.

SEC14L1 (E-14): sc-165444



BACKGROUND

SEC14L1 (SEC14-like protein 1) is a 715 amino acid protein that is ubiquitously expressed and belongs to the SEC14 cytosolic factor family. SEC14L1 has similarity to yeast SEC14 and to Japanese flying squid RALBP, which suggests a possible role of SEC14L1 in an intracellular transport system. The SEC14L1 protein contains a CRAL-TRIO domain, a GOLD domain and a PRELI/MSF1 domain. Existing as three alternatively spliced isoforms, the SEC14L1 gene is conserved in chimpanzee, canine, bovine, mouse, rat, chicken, zebrafish and *C.elegans*, and maps to human chromosome 17q25.2. The SEC14L1 gene consists of 18 exons ranging in size from 70 bp (exon 11) to 3,088 bp (exon 17) and spanning at least 58 kb of genomic DNA. Exon 17 contains a highly polymorphic VNTR and seems to be present only in the larger ubiquitously expressed 5.5-kb transcript.

REFERENCES

- Chinen, K., Takahashi, E. and Nakamura, Y. 1996. Isolation and mapping of a human gene (SEC14L), partially homologous to yeast SEC14, that contains a variable number of tandem repeats (VNTR) site in its 3' untranslated region. Cytogenet. Cell Genet. 73: 218-223.
- Meuleman, J., Kuhlenbäumer, G., Audenaert, D., Hünermund, G., Hor, H., Young, P., Stögbauer, F., Ringelstein, E.B., Van Broeckhoven, C., De Jonghe, P. and Timmerman, V. 2001. Mutation analysis of 4 candidate genes for hereditary neuralgic amyotrophy (HNA). Hum. Genet. 108: 390-393.
- Kalikin, L.M., Bugeaud, E.M., Palmbos, P.L., Lyons, R.H. and Petty, E.M. 2001. Genomic characterization of human SEC14L1 splice variants within a 17q25 candidate tumor suppressor gene region and identification of an unrelated embedded expressed sequence tag. Mamm. Genome 12: 925-929.
- 4. Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 601504. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 5. Watts, G.D., O'Briant, K.C. and Chance, P.F. 2002. Evidence of a founder effect and refinement of the hereditary neuralgic amyotrophy (HNA) locus on 17q25 in American families. Hum. Genet. 110: 166-172.
- Saito, K., Tautz, L. and Mustelin, T. 2007. The lipid-binding SEC14 domain. Biochim. Biophys. Acta 1771: 719-726.
- Ribeiro, F.M., Ferreira, L.T., Marion, S., Fontes, S., Gomez, M., Ferguson, S.S., Prado, M.A. and Prado, V.F. 2007. SEC14-like protein 1 interacts with cholinergic transporters. Neurochem. Int. 50: 356-364.

CHROMOSOMAL LOCATION

Genetic locus: SEC14L1 (human) mapping to 17q25.2; Sec14l1 (mouse) mapping to 11 E2.

SOURCE

SEC14L1 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SEC14L1 of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-165444 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SEC14L1 (E-14) is recommended for detection of SEC14L1 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 SEC14L family members.

SEC14L1 (E-14) is also recommended for detection of SEC14L1 in additional species, including equine and canine.

Suitable for use as control antibody for SEC14L1 siRNA (h): sc-93981, SEC14L1 siRNA (m): sc-153299, SEC14L1 shRNA Plasmid (h): sc-93981-SH, SEC14L1 shRNA Plasmid (m): sc-153299-SH, SEC14L1 shRNA (h) Lentiviral Particles: sc-93981-V and SEC14L1 shRNA (m) Lentiviral Particles: sc-153299-V.

Molecular Weight of SEC14L1: 81 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) Immunofluo-rescence: 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.

PROTOCOLS

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