SANTA CRUZ BIOTECHNOLOGY, INC.

SEC22C (G-19): sc-103199



BACKGROUND

The *S. cerevisiae* protein Sec22p functions as a v-SNARE of transport vesicles and plays a role in both retrograde and anterograde vesicular transport between the Golgi and the endoplasmic reticulum (ER). There are three mammalian homologs to Sec22p, namely SEC22A, SEC22B and SEC22C. SEC22C (SEC22 vesicle trafficking protein homolog C), also known as SEC22L3, is a 303 amino acid multi-pass membrane protein of the endoplasmic reticulum. Ubiquitously expressed, SEC22C belongs to the synaptobrevin family, contains one longin domain and exists as three alternatively spliced isoforms. The gene encoding SEC22C maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci. Marfan syndrome, porphyria, von Hippel-Lindau syndrome, osteogenesis imperfecta and Charcot-Marie-Tooth disease are a few of the numerous genetic diseases associated with chromosome 3.

REFERENCES

- De Jonghe, P., et al. 1997. Mutilating neuropathic ulcerations in a chromosome 3q13-q22 linked Charcot-Marie-Tooth disease type 2B family. J. Neurol. Neurosurg. Psychiatr. 62: 570-573.
- Tang, B.L., et al. 1998. Hsec22c: a homolog of yeast Sec22p and mammalian rsec22a and msec22b/ERS-24. Biochem. Biophys. Res. Commun. 243: 885-891.
- 3. Maho, A., et al. 1999. Mapping of the CCXCR1, CX3CR1, CCBP2 and CCR9 genes to the CCR cluster within the 3p21.3 region of the human genome. Cytogenet. Cell Genet. 87: 265-268.
- Robinson, P.N., et al. 2000. The molecular genetics of Marfan syndrome and related microfibrillopathies. J. Med. Genet. 37: 9-25.
- Parlati, F., et al. 2000. Topological restriction of SNARE-dependent membrane fusion. Nature 407: 194-198.
- Braga, E.A., et al. 2003. New tumor suppressor genes in hot spots of human chromosome 3: new methods of identification. Mol. Biol. 37: 194-211.
- 7. Yue, Y., et al. 2005. Comparative cytogenetics of human chromosome 3q21.3 reveals a hot spot for ectopic recombination in hominoid evolution. Genomics 85: 36-47.
- 8. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 604028. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: SEC22C (human) mapping to 3p22.1.

SOURCE

SEC22C (G-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SEC22C of human origin.

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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-103199 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SEC22C (G-19) is recommended for detection of SEC22C of 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).

Suitable for use as control antibody for SEC22C siRNA (h): sc-78216, SEC22C shRNA Plasmid (h): sc-78216-SH and SEC22C shRNA (h) Lentiviral Particles: sc-78216-V.

Molecular Weight of SEC22C isoforms: 34/28/26 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.

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.