SANTA CRUZ BIOTECHNOLOGY, INC.

Ribophorin I (C-15): sc-12164

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Membrane proteins of the endoplasmic reticulum (ER) may be localized by mechanisms that involve retention, retrieval or a combination of both. ER localization information has been found in cytoplasmic, transmembrane or luminal domains. Specific retrieval mechanisms have been identified for luminal ER proteins, which contain a KDEL domain, and for type I transmembrane proteins carrying a dilysine motif. Mammalian oligosaccharyltransferase (OST) is a protein complex that is composed of four rough ER-specific, type I transmembrane proteins: Ribophorins I and II (RI and RII), OST48 and DAD1 (also designated defender against apoptotic death). The ribophorins are integral membrane glycoproteins that localize exclusively to the rough ER. There is affinity between the cytoplasmically located N-terminal region of DAD1 and the short cytoplasmic tail of OST48 to place DAD1 firmly into the OST complex. The OST complex affects the cotranslational N-glycosylation of newly synthesized polypeptides.

CHROMOSOMAL LOCATION

Genetic locus: RPN1 (human) mapping to 3q21.3; Rpn1 (mouse) mapping to 6 D1.

SOURCE

Ribophorin I (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Ribophorin I 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-12164 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Ribophorin I (C-15) is recommended for detection of Ribophorin I of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Ribophorin I (C-15) is also recommended for detection of Ribophorin I in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Ribophorin I siRNA (h): sc-36420, Ribophorin I siRNA (m): sc-36421, Ribophorin I shRNA Plasmid (h): sc-36420-SH, Ribophorin I shRNA Plasmid (m): sc-36421-SH, Ribophorin I shRNA (h) Lentiviral Particles: sc-36420-V and Ribophorin I shRNA (m) Lentiviral Particles: sc-36421-V.

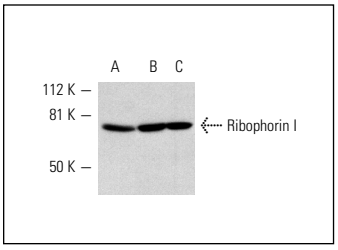
Molecular Weight of Ribophorin I: 63 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, KNRK whole cell lysate: sc-2214 or NIH/3T3 whole cell lysate: sc-2210.

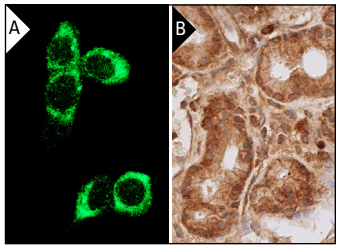
STORAGE

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

DATA



Ribophorin I (C-15): sc-12164. Western blot analysis of Ribophorin I expression in HeLa (**A**), KNRK (**B**) and NIH/3T3 (**C**) whole cell lysates.



Ribophorin I (C-15): sc-12164. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic staining (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human salivary gland tissue showing cytoplasmic and nuclear staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Bahamonde, M.I., et al. 2003. Plasma membrane voltage-dependent anion channel mediates antiestrogen-activated maxi Cl^- currents in C1300 neuroblastoma cells. J. Biol. Chem. 278: 33284.
2. Nadanaka, S., et al. 2006. Analysis of ATF6 activation in Site-2 protease-deficient Chinese hamster ovary cells. Cell Struct. Funct. 31: 109-116.
3. Nadanaka, S., et al. 2006. Reduction of disulfide bridges in the lumenal domain of ATF6 in response to glucose starvation. Cell Struct. Funct. 31: 127-134.
4. Tanahashi, H. and Tabira, T. 2007. A novel β-site amyloid precursor protein cleaving enzyme (BACE) isoform regulated by nonsense-mediated mRNA decay and proteasome-dependent degradation. Neurosci. Lett. 428: 103-108.
5. Nadanaka, S., et al. 2007. Role of disulfide bridges formed in the luminal domain of ATF6 in sensing endoplasmic reticulum stress. Mol. Cell. Biol. 27: 1027-1043.
6. Ghannam, A., et al. 2008. High-density rafts preferentially host the complement activator measles virus F glycoprotein but not the regulators of complement activation. Mol. Immunol. 45: 3036-3044.

RESEARCH USE

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