

Ribophorin II (H-300): sc-25560

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. The 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 endoplasmic reticulum. 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 affects the cotranslational N-glycosylation of newly synthesized polypeptides.

REFERENCES

- Silberstein, S., et al. 1992. The 48-kDa subunit of the mammalian oligosaccharyltransferase complex is homologous to the essential yeast protein WBP1. *J. Biol. Chem.* 267: 23658-23663.
- Fu, J., et al. 1997. Interactions among subunits of the oligosaccharyltransferase complex. *J. Biol. Chem.* 272: 29687-29692.
- Kelleher, D.J. and Gilmore, R. 1997. DAD1, the defender against apoptotic cell death, is a subunit of the mammalian oligosaccharyltransferase. *Proc. Natl. Acad. Sci. USA* 94: 4994-4999.
- Sanjay, A., et al. 1998. DAD1 is required for the function and the structural integrity of the oligosaccharyltransferase complex. *J. Biol. Chem.* 273: 26094-26099.
- Fu, J., et al. 2000. Localization of Ribophorin II to the endoplasmic reticulum involves both its transmembrane and cytoplasmic domains. *Eur. J. Cell Biol.* 79: 219-228.
- Fu, J. and Kreibich, G. 2000. Retention of subunits of the oligosaccharyltransferase complex in the endoplasmic reticulum. *J. Biol. Chem.* 275: 3984-3990.

CHROMOSOMAL LOCATION

Genetic locus: RPN2 (human) mapping to 20q11.23; Rpn2 (mouse) mapping to 2 H1.

SOURCE

Ribophorin II (H-300) is a rabbit polyclonal antibody raised against amino acids 332-631 of Ribophorin II 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.

RESEARCH USE

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

APPLICATIONS

Ribophorin II (H-300) is recommended for detection of Ribophorin II 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

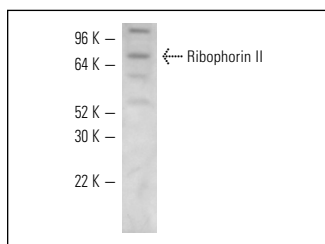
Ribophorin II (H-300) is also recommended for detection of Ribophorin II in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Ribophorin II siRNA (h): sc-36422, Ribophorin II siRNA (m): sc-36423, Ribophorin II shRNA Plasmid (h): sc-36422-SH, Ribophorin II shRNA Plasmid (m): sc-36423-SH, Ribophorin II shRNA (h) Lentiviral Particles: sc-36422-V and Ribophorin II shRNA (m) Lentiviral Particles: sc-36423-V.

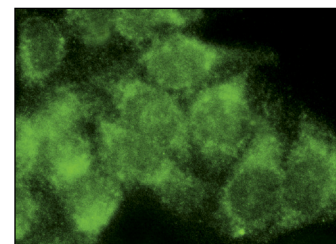
Molecular Weight of Ribophorin II: 63 kDa.

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

DATA



Ribophorin II (H-300): sc-25560. Western blot analysis of Ribophorin II expression in NIH/3T3 whole cell lysate.



Ribophorin II (H-300): sc-25560. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Choi, H., et al. 2008. mrtI-A translation/localization regulatory protein encoded within the human c-Myc locus and distributed throughout the endoplasmic and nucleoplasmic reticular network. *J. Cell. Biochem.* 105: 1092-1108.

STORAGE

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

MONOS
Satisfaction
Guaranteed

Try **Ribophorin II (A-1): sc-166421**, our highly recommended monoclonal alternative to Ribophorin II (H-300).