

OST48 (L-20): sc-12171

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 the 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

1. 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.
2. Fu, J., et al. 1997. Interactions among subunits of the oligosaccharyltransferase complex. *J. Biol. Chem.* 272: 29687-29692.
3. Kelleher, D.J., et al. 1997. DAD1, the defender against apoptotic cell death, is a subunit of the mammalian oligosaccharyltransferase. *Proc. Natl. Acad. Sci. USA* 94: 4994-4999.
4. 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.
5. 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.
6. Fu, J., et al. 2000. Retention of subunits of the oligosaccharyltransferase complex in the endoplasmic reticulum. *J. Biol. Chem.* 275: 3984-3990.

CHROMOSOMAL LOCATION

Genetic locus: DDOST (human) mapping to 1p36.12; Ddost (mouse) mapping to 4 D3.

SOURCE

OST48 (L-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of OST48 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-12171 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

OST48 (L-20) is recommended for detection of OST48 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).

OST48 (L-20) is also recommended for detection of OST48 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for OST48 siRNA (h): sc-40788, OST48 siRNA (m): sc-40789, OST48 shRNA Plasmid (h): sc-40788-SH, OST48 shRNA Plasmid (m): sc-40789-SH, OST48 shRNA (h) Lentiviral Particles: sc-40788-V and OST48 shRNA (m) Lentiviral Particles: sc-40789-V.

Molecular Weight of OST48: 48 kDa.

Positive Controls: MDCK cell lysate: sc-2252, HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

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) Immunofluorescence: 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.

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.



Try **OST48 (E-9): sc-74408** or **OST48 (H-1): sc-74407**, our highly recommended monoclonal alternatives to OST48 (L-20).