SANTA CRUZ BIOTECHNOLOGY, INC.

OST48 (H-300): sc-25558

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. 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.

CHROMOSOMAL LOCATION

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

SOURCE

OST48 (H-300) is a rabbit polyclonal antibody raised against amino acids 157-456 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.

APPLICATIONS

OST48 (H-300) 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), 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).

OST48 (H-300) 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.

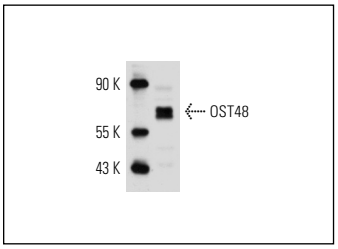
STORAGE

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

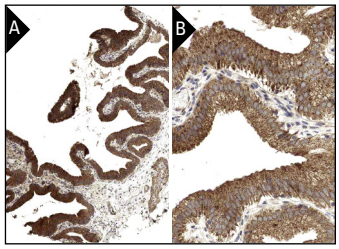
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



OST48 (H-300): sc-25558. Western blot analysis of OST48 expression in MDCK whole cell lysate.



OST48 (H-300): sc-25558. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic staining of glandular cells at low (**A**) and high (**B**) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

1. Patterson, S.T., et al. 2009. Loss of specific chaperones involved in membrane glycoprotein biosynthesis during the maturation of human erythroid progenitor cells. J. Biol. Chem. 284: 14547-14557.
2. Sourris, K.C., et al. 2010. Modulation of the cellular expression of circulating advanced glycation end-product receptors in type 2 diabetic nephropathy. Exp. Diabetes Res. 2010: 974681.

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.

MONOS Satisfaction Guaranteed

Try **OST48 (E-9): sc-74408** or **OST48 (H-1): sc-74407**, our highly recommended monoclonal alternatives to OST48 (H-300).