

OST4 (C-12): sc-248188

BACKGROUND

The mammalian oligosaccharyltransferase (OST) is a protein complex that is composed of at least four rough ER-specific, type I transmembrane proteins: ribophorins I and II (RI and RII), OST48, and DAD1 (also designated defender against apoptotic death). OST4 (oligosaccharyltransferase 4), also known as dolichyl-diphosphooligosaccharide-protein glycosyltransferase subunit 4, is a 37 amino acid single-pass membrane protein and component of the OST complex. Via interactions with N-oligosaccharyl transferase, OST4 may contribute to N-glycosylation. OST4 is encoded by a gene that maps to human chromosome 2, which consists of 237 million bases, encodes over 1,400 genes and makes up approximately 8% of the human genome. A number of genetic diseases are linked to genes on chromosome 2 including Harlequin ichthyosis, sitosterolemia and Alström syndrome.

REFERENCES

1. Fu, J., et al. 1997. Interactions among subunits of the oligosaccharyltransferase complex. *J. Biol. Chem.* 272: 29687-29692.
2. 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.
3. Patel, S.B., et al. 1998. Mapping a gene involved in regulating dietary cholesterol absorption. The sitosterolemia locus is found at chromosome 2p21. *J. Clin. Invest.* 102: 1041-1044.
4. Fu, J., et al. 2000. Retention of subunits of the oligosaccharyltransferase complex in the endoplasmic reticulum. *J. Biol. Chem.* 275: 3984-3990.
5. Zumsteg, U., et al. 2000. Alstrom syndrome: confirmation of linkage to chromosome 2p12-13 and phenotypic heterogeneity in three affected sibs. *J. Med. Genet.* 37: E8.
6. Kelsell, D.P., et al. 2005. Mutations in ABCA12 underlie the severe congenital skin disease harlequin ichthyosis. *Am. J. Hum. Genet.* 76: 794-803.
7. Kelleher, D.J., et al. 2006. An evolving view of the eukaryotic oligosaccharyltransferase. *Glycobiology* 16: 47R-62R.

CHROMOSOMAL LOCATION

Genetic locus: OST4 (human) mapping to 2p23.3; 2310016E02Rik (mouse) mapping to 5 B1.

SOURCE

OST4 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of OST4 of human origin.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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-248188 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

OST4 (C-12) is recommended for detection of OST4 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).

OST4 (C-12) is also recommended for detection of OST4 in additional species, including canine and bovine.

Suitable for use as control antibody for OST4 siRNA (m): sc-108670, OST4 shRNA Plasmid (m): sc-108670-SH and OST4 shRNA (m) Lentiviral Particles: sc-108670-V.

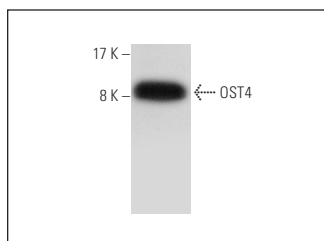
Molecular Weight of OST4: 4 kDa.

Positive Controls: mouse brain extract: sc-2253.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



OST4 (C-12): sc-248188. Western blot analysis of OST4 expression in mouse brain tissue extract.

RESEARCH USE

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