



Recombinant Protein Technical Manual

Recombinant Human DDOST/OST48 Protein

RPES5024

Product Data:

Product SKU: RPES5024

Size: 20µg

Species: Human

Expression host: E. coli

Uniprot: P39656

Protein Information:

Molecular Mass: 42.7 kDa

AP Molecular Mass: 46 kDa

Tag:

Bio-activity:

Purity: > 95 % as determined by reducing SDS-PAGE.

Endotoxin: Please contact us for more information.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile 50mM Tris, 150mM NaCl, pH 8.0

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: AGER1;CDG1R;OKSWcl45;OST;OST48;WBP1

Immunogen Information:

Sequence: Ser 43-Pro 427

Background:

The enzyme oligosaccharyltransferase (dolichyl-diphosphooligosaccharide-protein glycosyltransferase) (DDOST), or 48-kDa subunit (OST48) is one of the catalytic subunits in this complex, exerts a typical type I membrane topology, containing a large luminal domain, a hydrophobic transmembrane domain and a short cytosolic peptide tail. DDOST/OST48 catalyzes the transfer of a high-mannose oligosaccharide (GlcNac2Man9Glc3) from a dolichol-linked oligosaccharide donor (dolichol-P-GlcNac2Man9Glc3) onto the asparagine acceptor site within an Asn-X-Ser/Thr consensus motif in nascent polypeptide chains across the membrane of the endoplasmic reticulum. The mammalian oligosaccharyltransferase (OST) is an oligomeric complex composed of three type I transmembrane proteins of the endoplasmic reticulum: ribophorin I (RI), ribophorin II (RII), and OST48. OST48 is not a glycoprotein and is not recognized by antibodies to either ribophorin. Like ribophorins I and II, OST48 was found to be an integral membrane protein, with the majority of the polypeptide located within the lumen of the endoplasmic reticulum (ER). OST48 does not show significant amino acid sequence homology to either ribophorin I or II. It had been found that only the luminal domain of RI contains ER retention information. The dilysine motif in OST48 functions as an ER localization motif because OST48 in which the two lysine residues are replaced by serine (OST48ss) is no longer retained in the ER and is found instead also at the plasma membrane.