

STT3A / ITM1 Antibody (clone 4D4)
Mouse Monoclonal Antibody
Catalog # ALS13348**Specification**

STT3A / ITM1 Antibody (clone 4D4) - Product Information

Application	WB
Primary Accession	P46977
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	81kDa KDa

STT3A / ITM1 Antibody (clone 4D4) - Additional Information**Gene ID** 3703**Other Names**

Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit STT3A, Oligosaccharyl transferase subunit STT3A, STT3-A, 2.4.99.18, B5, Integral membrane protein 1, Transmembrane protein TMC, STT3A, ITM1, TMC

Reconstitution & Storage

Store at -20°C. Aliquot to avoid freeze/thaw cycles.

Precautions

STT3A / ITM1 Antibody (clone 4D4) is for research use only and not for use in diagnostic or therapeutic procedures.

STT3A / ITM1 Antibody (clone 4D4) - Protein Information**Name** STT3A ([HGNC:6172](#))**Synonyms** ITM1, TMC**Function**

Catalytic subunit of the oligosaccharyl transferase (OST) complex that catalyzes the initial transfer of a defined glycan (Glc(3)Man(9)GlcNAc(2) in eukaryotes) from the lipid carrier dolichol-pyrophosphate to an asparagine residue within an Asn-X-Ser/Thr consensus motif in nascent polypeptide chains, the first step in protein N-glycosylation (PubMed:31831667, PubMed:34653363). N-glycosylation occurs cotranslationally and the complex associates with the Sec61 complex at the channel-forming translocon complex that mediates protein translocation across the endoplasmic reticulum (ER). All subunits are required for a maximal enzyme activity. This subunit contains the active site and the acceptor peptide and donor lipid-linked oligosaccharide (LLO) binding pockets (By similarity). STT3A is present in the majority of OST complexes and mediates cotranslational N-glycosylation of most sites on target proteins, while STT3B-containing complexes are required

for efficient post-translational glycosylation and mediate glycosylation of sites that have been skipped by STT3A (PubMed:19167329).

Cellular Location

Endoplasmic reticulum. Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:P46978}; Multi-pass membrane protein {ECO:0000250|UniProtKB:P46978}

Tissue Location

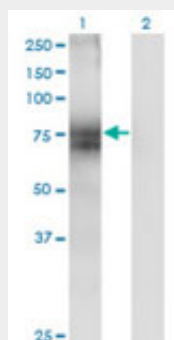
Expressed at high levels in placenta, liver, muscle and pancreas, and at very low levels in brain, lung and kidney Expressed in skin fibroblasts (at protein level)

STT3A / ITM1 Antibody (clone 4D4) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

STT3A / ITM1 Antibody (clone 4D4) - Images



Western blot of ITM1 expression in transfected 293T cell line by ITM1 monoclonal antibody clone 4D4.

STT3A / ITM1 Antibody (clone 4D4) - Background

Catalytic subunit of the N-oligosaccharyl transferase (OST) complex which catalyzes the transfer of a high mannose oligosaccharide from a lipid-linked oligosaccharide donor to an asparagine residue within an Asn-X-Ser/Thr consensus motif in nascent polypeptide chains. N-glycosylation occurs cotranslationally and the complex associates with the Sec61 complex at the channel-forming translocon complex that mediates protein translocation across the endoplasmic reticulum (ER). SST3A seems to be involved in complex substrate specificity. STT3A is present in the majority of OST complexes and mediates cotranslational N-glycosylation of most sites on target proteins, while STT3B-containing complexes are required for efficient cotranslational glycosylation and mediate glycosylation of sites that have been skipped by STT3A.

STT3A / ITM1 Antibody (clone 4D4) - References

Hong G.,et al.Genomics 31:295-300(1996).
Lissy N.A.,et al.Biochim. Biophys. Acta 1306:137-141(1996).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Kalnine N.,et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.
Taylor T.D.,et al.Nature 440:497-500(2006).