SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

SANTA CRUZ BIOTECHNOLOGY, INC.

ITM1 (h): 293T Lysate: sc-158648

BACKGROUND

ITM1 (integral membrane protein 1), also known as TMC (transmembrane protein TMC) or STT3A (STT3, subunit of the oligosaccharyltransferase complex, homolog A), is a member of the STT3 family of proteins. Predominantly expressed in liver, pancreas, muscle, placenta and skin fibroblasts, ITM1 is a multi-pass membrane protein that localizes to the membrane of the endoplasmic reticulum (ER). ITM1 is one of two multicellular eukaryotic homologs of the *S. cerevisiae* protein STT3, an essential component of the yeast OST (oligosaccharyltransferase) complex. Both homologs (ITM1 and SIMP) are glycosylated and function as the catalytic component of the mammalian OST complex which is responsible for catalyzing the transfer of a high mannose oligosaccharide to an asparagine residue in nascent proteins that enter the lumen of the ER. Using lipid-linked oligosaccharides as donors, the OST complex specifically transfers the oligosaccharide to the asparagine residue in an Asn-X-Ser/Thr consensus motif (X is any amino acid excluding proline). Compared with SIMP, ITM1 is less active but also more selective in terms of substrates.

REFERENCES

1. Lissy, N.A., et al. 1996. Isolation, characterization, and mapping to human chromosome 11q24-25 of a cDNA encoding a highly conserved putative transmembrane protein, TMC. Biochim. Biophys. Acta 1306: 137-141.
2. Hong, G., et al. 1996. Molecular cloning of a highly conserved mouse and human integral membrane protein (ITM1) and genetic mapping to mouse chromosome 9. Genomics 31: 295-300.
3. Van Hul, W., et al. 1996. Assignment of the human integral transmembrane protein 1 gene (ITM1) to human chromosome band 11q23.3 by *in situ* hybridization and YAC mapping. Cytogenet. Cell Genet. 74: 218-219.
4. Yoshida, S., et al. 1999. *Schizosaccharomyces pombe* Stt3^{+} is a functional homologue of *Saccharomyces cerevisiae* STT3 which regulates oligosaccharyltransferase activity. Yeast 15: 497-505.
5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 601134. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
6. Kelleher, D.J., et al. 2003. Oligosaccharyltransferase isoforms that contain different catalytic STT3 subunits have distinct enzymatic properties. Mol. Cell 12: 101-111.
7. Shibatani, T., et al. 2005. Proteomic analysis of mammalian oligosaccharyltransferase reveals multiple subcomplexes that contain Sec61, TRAP, and two potential new subunits. Biochemistry 44: 5982-5992.
8. Kelleher, D.J. and Gilmore, R. 2006. An evolving view of the eukaryotic oligosaccharyltransferase. Glycobiology 16: 47R-62R.
9. Wilson, C.M. and High, S. 2007. Ribophorin I acts as a substrate-specific facilitator of N-glycosylation. J. Cell Sci. 120: 648-657.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: STT3A (human) mapping to 11q24.2.

PRODUCT

ITM1 (h): 293T Lysate represents a lysate of human ITM1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

ITM1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive ITM1 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

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

PROTOCOLS

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