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.

Trehalase siRNA (m): sc-154626

BACKGROUND

Trehalase, also known as TREH, TREA or α,α-trehalose glucohydrolase, is a 583 amino acid protein belonging to the glycosyl hydrolase 37 family. Localizing to cell membrane and lipid-anchor, Trehalase is expressed in kidney, liver, and small intestine. Trehalase hydrolyses ingested trehalose, a disaccharide formed by two glucose molecules found mainly in insects, fungi, and plants, into cellular substrate glucose. Isolated trehalose intolerance due to deficiencies of Trehalase can result in gastrointestinal symptoms. Trehalase may also be a marker for renal tubular damage, and may contain an N-terminal signal peptide, five potential N-glycosylation sites, and a C-terminal hydrophobic region for glycosylphosphatidylinositol (GPI) attachment. Existing as two alternatively spliced isoforms, the gene encoding Trehalase maps to human chromosome 11q23.3.

REFERENCES

1. Ruf, J., et al. 1990. Rabbit small intestinal trehalase. Purification, cDNA cloning, expression, and verification of glycosylphosphatidylinositol anchoring. J. Biol. Chem. 265: 15034-15039.
2. Sasai-Takedatsu, M., et al. 1996. Human trehalase: characterization, localization, and its increase in urine by renal proximal tubular damage. Nephron 73: 179-185.
3. shihara, R., et al. 1997. Molecular cloning, sequencing and expression of cDNA encoding human trehalase. Gene 202: 69-74.
4. Oesterreicher, T.J., et al. 2001. Cloning, characterization and mapping of the mouse trehalase (Treh) gene. Gene 270: 211-220.
5. Forcella, M., et al. 2010. A membrane-bound trehalase from *Chironomus riparius larvae:* purification and sensitivity to inhibition. Glycobiology 20: 1186-1195.
6. Wegener, G., et al. 2010. Long-term effects of the trehalase inhibitor trehazolin on trehalase activity in locust flight muscle. J. Exp. Biol. 213: 3852-3857.
7. Liebl, M., et al. 2010. Fate and effects of the trehalase inhibitor trehazolin in the migratory locust *(Locusta migratoria).* J. Insect Physiol. 56: 567-574.

CHROMOSOMAL LOCATION

Genetic locus: Treh (mouse) mapping to 9 A5.2.

PRODUCT

Trehalase siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Trehalase shRNA Plasmid (m): sc-154626-SH and Trehalase shRNA (m) Lentiviral Particles: sc-154626-V as alternate gene silencing products.

For independent verification of Trehalase (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-154626A, sc-154626B and sc-154626C.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

Trehalase siRNA (m) is recommended for the inhibition of Trehalase expression in mouse cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

GENE EXPRESSION MONITORING

Trehalase (D-2): sc-390034 is recommended as a control antibody for monitoring of Trehalase gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Trehalase gene expression knockdown using RT-PCR Primer: Trehalase (m)-PR: sc-154626-PR (20 µl, 516 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

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.