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.

IGRP siRNA (m): sc-45251

BACKGROUND

Glucose-6-phosphatase (G6Pase), is a multicomponent enzyme system that hydrolyzes glucose-6-phosphate in the final step of gluconeogenesis and gluconeolysis. G6Pase localizes to the endoplasmic reticulum, and while liver, kidney and intestine are the only tissues that express the first identified isoform, G6Pase-α, a second form, designated G6Pase-β, contributes to blood glucose homeostasis in a wider range of tissues. Islet-specific G6Pase catalytic subunit-related protein (IGRP), a homolog of the catalytic subunit of G6Pase, may play a role in the regulation of islet metabolism and in Insulin secretion induced by metabolites. The exact catalytic acivity of IGRP is not defined. Identification of inhibitors of IGRP have potential therapeutic benefits for treatment of type II diabetes resulting from Insulin secretion defects. Structurally, IGRP has been shown to be a glycoprotein held in the endoplasmic reticulum by nine transmembrane domains, which are then degraded in cells through the proteasome pathway generating MHC class I presented peptides.

REFERENCES

1. Arden, S.D., et al. 1999. Molecular cloning of a pancreatic islet-specific glucose-6-phosphatase catalytic subunit-related protein. Diabetes 48: 531-542.
2. Ebert, D.H., et al. 1999. Structure and promoter activity of an islet-specific glucose-6-phosphatase catalytic subunit-related gene. Diabetes 48: 543-551.
3. Martin, C.C., et al. 2001. Cloning and characterization of the human and rat islet-specific glucose-6-phosphatase catalytic subunit-related protein (IGRP) genes. J. Biol. Chem. 276: 25197-25207.
4. Petrolonis, A.J., et al. 2004. Enzymatic characterization of the pancreatic islet-specific glucose-6-phosphatase-related protein (IGRP). J. Biol. Chem. 279: 13976-13983.
5. Shieh, J.J., et al. 2004. The islet-specific glucose-6-phosphatase-related protein, implicated in diabetes, is a glycoprotein embedded in the endoplasmic reticulum membrane. FEBS Lett. 562: 160-164.

CHROMOSOMAL LOCATION

Genetic locus: G6pc2 (mouse) mapping to 2 C2.

PRODUCT

IGRP 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 IGRP shRNA Plasmid (m): sc-45251-SH and IGRP shRNA (m) Lentiviral Particles: sc-45251-V as alternate gene silencing products.

For independent verification of IGRP (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-45251A, sc-45251B and sc-45251C.

RESEARCH USE

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

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

IGRP siRNA (m) is recommended for the inhibition of IGRP 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor IGRP gene expression knockdown using RT-PCR Primer: IGRP (m)-PR: sc-45251-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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