



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 Handels GmbH

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](https://www.linkedin.com/company/szaboscandic) 

MBOAT4 siRNA (m): sc-149309

BACKGROUND

MBOAT4 (membrane-bound O-acyltransferase domain-containing protein 4, ghrelin O-acyltransferase) is a 435 amino acid, multi-pass membrane protein that belongs to the membrane-bound acyltransferase family. MBOAT4 functions as an enzyme that attaches an octanoate fatty acid to serine-3 of ghrelin. Ghrelin is a very small, appetite-stimulating hormone secreted by the food-deprived stomach. MBOAT4 can use a variety of fatty acids as substrates including octanoic acid, decanoic acid and tetradecanoic acid. MBOAT4 expression, consistent with its function, is mainly in the stomach and intestines. Due to its primary function, MBOAT4 is a candidate for obesity and appetite suppression studies.

REFERENCES

1. Gardiner, J. and Bloom, S. 2008. Ghrelin gets its GOAT. *Cell Metab.* 7: 193-194.
2. Stahl, U., Stalberg, K., Stymne, S. and Ronne, H. 2008. A family of eukaryotic lysophospholipid acyltransferases with broad specificity. *FEBS Lett.* 582: 305-309.
3. Matsuda, S., Inoue, T., Lee, H.C., Kono, N., Tanaka, F., Gengyo-Ando, K., Mitani, S. and Arai, H. 2008. Member of the membrane-bound O-acyltransferase (MBOAT) family encodes a lysophospholipid acyltransferase with broad substrate specificity. *Genes Cells* 13: 879-888.
4. Shindou, H., Hishikawa, D., Harayama, T., Yuki, K. and Shimizu, T. 2008. Recent progress on acyl-CoA:lysophospholipid acyltransferase research. *J. Lipid Res.* 50: S46-S51.
5. González, C.R., Vázquez, M.J., López, M. and Diéguez, C. 2008. Influence of chronic undernutrition and leptin on GOAT mRNA levels in rat stomach mucosa. *J. Mol. Endocrinol.* 41: 415-421.
6. Gutierrez, J.A., Solenberg, P.J., Perkins, D.R., Willency, J.A., Knierman, M.D., Jin, Z., Witcher, D.R., Luo, S., Onyia, J.E. and Hale, J.E. 2008. Ghrelin octanoylation mediated by an orphan lipid transferase. *Proc. Natl. Acad. Sci. USA* 105: 6320-6325.
7. Yang, J., Zhao, T.J., Goldstein, J.L. and Brown, M.S. 2008. Inhibition of ghrelin O-acyltransferase (GOAT) by octanoylated pentapeptides. *Proc. Natl. Acad. Sci. USA* 105: 10750-10755.
8. Gualillo, O., Lago, F. and Dieguez, C. 2008. Introducing GOAT: a target for obesity and anti-diabetic drugs? *Trends Pharmacol. Sci.* 29: 398-401.

CHROMOSOMAL LOCATION

Genetic locus: Mboat4 (mouse) mapping to 8 A4.

PRODUCT

MBOAT4 siRNA (m) is a target-specific 19-25 nt siRNA designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see MBOAT4 shRNA Plasmid (m): sc-149309-SH and MBOAT4 shRNA (m) Lentiviral Particles: sc-149309-V as alternate gene silencing products.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

MBOAT4 siRNA (m) is recommended for the inhibition of MBOAT4 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 μ M in 66 μ l. 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 MBOAT4 gene expression knockdown using RT-PCR Primer: MBOAT4 (m)-PR: sc-149309-PR (20 μ l). 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.