



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

Gstm3 siRNA (m): sc-145811

BACKGROUND

Members of the glutathione S-transferase (GST) family of proteins function in the detoxification of xenobiotics to protect cells against toxicant-induced damage. There are eight families of GST proteins, namely α , ζ , θ , κ , μ , π , σ and ω , each of which are composed of proteins that have a variety of functions throughout the cell. The GSTM proteins (GSTM1-GSTM5 in human and GSTM1-GSTM7 in mouse) are members of the μ class of enzymes that conjugate with glutathione and function in the detoxification of carcinogens, environmental toxins and products of oxidative stress. GSTM3 is a 225 amino acid protein that is expressed in the testis and brain. Localized to the cytoplasm, GSTM3 exists as a homodimer.

REFERENCES

- McGuire, S., et al. 1997. Increased levels of glutathione S transferases and appearance of novel α class isoenzymes in kidneys of mice exposed to mercuric chloride. I. Biochemical and immunohistochemical studies. *Nephron* 77: 452-460.
- Patskovsky, Y.V., et al. 1999. An asparagine-phenylalanine substitution accounts for catalytic differences between hGSTM3-3 and other human class μ glutathione S-transferases. *Biochemistry* 38: 16187-16194.
- Massey, T.E., et al. 2000. Mechanisms of aflatoxin B1 lung tumorigenesis. *Exp. Lung Res.* 26: 673-683.
- Raza, H., et al. 2002. Multiple isoforms of mitochondrial glutathione S-transferases and their differential induction under oxidative stress. *Biochem. J.* 366: 45-55.
- Breton, C.V., et al. 2007. GSTM1 and APE1 genotypes affect arsenic-induced oxidative stress: a repeated measures study. *Environ. Health* 6: 39.
- Shang, W., et al. 2008. Expressions of glutathione S-transferase α , μ , and π in brains of medically intractable epileptic patients. *BMC Neurosci.* 9: 67.
- Lucena, M.I., et al. 2008. Glutathione S-transferase μ 1 and π 1 null genotypes increase susceptibility to idiosyncratic drug-induced liver injury. *Hepatology* 48: 588-596.
- Fukino, K., et al. 2008. Effects of N-acetyltransferase 2 (NAT2), CYP2E1 and Glutathione-S-transferase (GST) genotypes on the serum concentrations of isoniazid and metabolites in tuberculosis patients. *J. Toxicol. Sci.* 33: 187-195.

CHROMOSOMAL LOCATION

Genetic locus: Gstm3 (mouse) mapping to 3 F2.3.

PRODUCT

Gstm3 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 Gstm3 shRNA Plasmid (m): sc-145811-SH and Gstm3 shRNA (m) Lentiviral Particles: sc-145811-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

Gstm3 siRNA (m) is recommended for the inhibition of Gstm3 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 Gstm3 gene expression knockdown using RT-PCR Primer: Gstm3 (m)-PR: sc-145811-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.