SANTA CRUZ BIOTECHNOLOGY, INC.

# GLOD5 siRNA (m): sc-145427

## BACKGROUND

Glyoxalase domain-containing proteins are members of the glyoxalase I protein family that function in the removal of methylglyoxal (MGO), an α-oxoaldehyde, from the cell. GLOD5 (glyoxalase domain-containing protein 5) is a 148 amino acid glyoxalase domain-containing protein that is located on chromosome X. GLOD4 (glyoxalase domain-containing protein 4), also called C17orf25, is a 313 amino acid glyoxalase domain-containing protein that localizes to the mitochondrion. Expressed in liver, heart, brain, kidney, placenta and pancreas, GLOD4 interacts with NUDT9 and, through this interaction, may be involved in suppressing cell growth. GLOD5 expression is decreased in hepatocellular carcinoma cells, suggesting a possible role in tumor suppression. Three isoforms of GLOD5 exist due to alternative splicing events.

## REFERENCES


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3. Antognelli, C., Baldracchini, F., Talesa, V.N., Costantini, E., Zucchi, A. and Mearini, E. 2006. Overexpression of glyoxalase system enzymes in human kidney tumor. Cancer J. 12: 222-228.
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5. Kalousova, M., Germanova, A., Jachymova, M., Mestek, O., Tesao, V. and Zima, T. 2007. A419C (E111A) polymorphism of the glyoxalase I gene is associated with vascular complications in chronic hemodialysis patients. Ann. N.Y. Acad. Sci. 1126: 268-271.


## CHROMOSOMAL LOCATION

Genetic locus: Glod5 (mouse) mapping to X A1.1.

## PRODUCT

GLOD5 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see GLOD5 shRNA Plasmid (m): sc-145427-SH and GLOD5 shRNA (m) Lentiviral Particles: sc-145427-V as alternate gene silencing products.

## PROTOCOLS

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

GLOD5 siRNA (m) is recommended for the inhibition of GLOD5 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 GLOD5 gene expression knockdown using RT-PCR Primer: GLOD5 (m)-PR: sc-145427-PR (20 µl). 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.