SANTA CRUZ BIOTECHNOLOGY, INC.

MGST2 siRNA (m): sc-62611

BACKGROUND

MGST2 (microsomal glutathione S-transferase 2) is a 147 amino acid protein encoded by the human gene MGST2. MGST2 can catalyze the production of LTC_4 (leukotriene C_4) from LTA4 (leukotriene A_4) and reduced glutathione. It can also catalyze the conjugation of 1-chloro-2,4-dinitrobenzene with reduced glutathione. MSGT2 is a multi-pass membrane protein found as a homodimer. MGST2 belongs to the MAPEG family and is expressed in liver, spleen, skeletal muscle, heart, adrenals, pancreas, prostate, testis, fetal liver and fetal spleen. It has very low expression in lung, brain, placenta and bone marrow. Also, MGST2 is the only GST expressed in human umbilical vein endothelial cells (HUVECs).

REFERENCES

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3. Schröder, O., et al. 2004. Microsomal glutathione S-transferases: selective upregulation of leukotriene C_4 synthase during lipopolysaccharide-induced pyresis. Cell. Mol. Life Sci. 62: 87-94.
4. Bresell, A., et al. 2005. Bioinformatic and enzymatic characterization of the MAPEG superfamily. FEBS J. 272: 1688-1703.
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6. Yan, K.L., et al. 2006. A novel MGST2 non-synonymous mutation in a Chinese pedigree with psoriasis vulgaris. J. Invest. Dermatol. 126: 1003-1005.
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CHROMOSOMAL LOCATION

Genetic locus: Mgst2 (mouse) mapping to 3 C.

PRODUCT

MGST2 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 MGST2 shRNA Plasmid (m): sc-62611-SH and MGST2 shRNA (m) Lentiviral Particles: sc-62611-V as alternate gene silencing products.

For independent verification of MGST2 (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-62611A, sc-62611B and sc-62611C.

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

MGST2 siRNA (m) is recommended for the inhibition of MGST2 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 MGST2 gene expression knockdown using RT-PCR Primer: MGST2 (m)-PR: sc-62611-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.

PROTOCOLS

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