SANTA CRUZ BIOTECHNOLOGY, INC.

GCET2 siRNA (m): sc-145360

BACKGROUND

GCET2 (germinal center expressed transcript 2), also known as HGAL or GCAT2, is a 178 amino acid protein that localizes to the cytoplasm and contains two putative SH2 binding sites, as well as a PDZ-interacting domain and an immunoreceptor tyrosine-based activation motif (ITAM). Induced by IL-4, GCET2 is thought to function as a signaling molecule that may be involved in transduction pathways throughout the cell. Additionally, GCET2, which exists as multiple alternatively spliced isoforms, is upregulated in lymphoma cell lines, suggesting a role in carcinogenesis. The gene encoding GCET2 maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci.

REFERENCES

1. Christoph, T., et al. 1994. M17: a novel gene expressed in germinal centers. Int. Immunol. 6: 1203-1211.
2. Pan, Z., et al. 2003. Two newly characterized germinal center B cell-associated genes, GCET1 and GCET2, have differential expression in normal and neoplastic B cells. Am. J. Pathol. 163: 135-144.
3. Lossos, I.S., et al. 2003. HGAL is a novel interleukin-4-inducible gene that strongly predicts survival in diffuse large B cell lymphoma. Blood 101: 433-440.
4. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 607792. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Lu, X., et al. 2005. Distinct IL-4-induced gene expression, proliferation, and intracellular signaling in germinal center B cell-like and activated B cell-like diffuse large-cell lymphomas. Blood 105: 2924-2932.
6. Natkunam, Y., et al. 2005. Expression of the human germinal center-associated lymphoma (HGAL) protein, a new marker of germinal center B cell derivation. Blood 105: 3979-3986.
7. Lu, X., et al. 2007. HGAL, a lymphoma prognostic biomarker, interacts with the cytoskeleton and mediates the effects of IL-6 on cell migration. Blood 110: 4268-4277.

CHROMOSOMAL LOCATION

Genetic locus: Gcsam (mouse) mapping to 16 B5.

PRODUCT

GCET2 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 GCET2 shRNA Plasmid (m): sc-145360-SH and GCET2 shRNA (m) Lentiviral Particles: sc-145360-V as alternate gene silencing products.

For independent verification of GCET2 (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-145360A, sc-145360B and sc-145360C.

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

GCET2 siRNA (m) is recommended for the inhibition of GCET2 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 GCET2 gene expression knockdown using RT-PCR Primer: GCET2 (m)-PR: sc-145360-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.