

ZMYM2 siRNA (m): sc-155650

BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. ZMYM2 (zinc finger, MYM-type 2), also known as ZNF198, FIM, RAMP, or SCLL, is a 1,377 amino acid protein that localizes to the nucleus and contains nine MYM-type zinc fingers. ZMYM2 is considered a potential transcription factor. Thought to be a component of the BHC histone deacetylase complex, ZMYM2 interacts with HDAC1 and HDAC2 and is thought to stabilize the BHC complex via its MYM-type zinc fingers. The gene encoding ZMYM2 is subject to a translocation with Flg, an event that may be involved in the pathogenesis of stem cell leukemia lymphoma syndrome (SCLL), a lymphoblastic lymphoma often accompanied by pronounced peripheral eosinophilia and/or prominent eosinophilic infiltrates in the affected bone marrow.

REFERENCES

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4. Xiao, S., et al. 1998. FGFR1 is fused with a novel zinc-finger gene, ZNF198, in the t(8;13) leukaemia/lymphoma syndrome. *Nat. Genet.* 18: 84-87.
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6. Kulkarni, S., et al. 1999. The genomic structure of ZNF198 and location of breakpoints in the t(8;13) myeloproliferative syndrome. *Genomics* 55: 118-121.
7. Matsumoto, K., et al. 1999. A chronic myelogenous leukemia-like myeloproliferative disorder accompanied by T-cell lymphoblastic lymphoma with chromosome translocation t(8;13)(p11;q12): a Japanese case. *Int. J. Hematol.* 70: 278-282.
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9. Trimaldi, J., et al. 2013. B-lymphoblastic leukemia/lymphoma associated with t(8;13)(p11;q12)/ZMYM2 (ZNF198)-FGFR1: rare case and review of the literature. *Acta Haematol.* 130: 127-134.

CHROMOSOMAL LOCATION

Genetic locus: Zmym2 (mouse) mapping to 14 C3.

PROTOCOLS

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

PRODUCT

ZMYM2 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ZMYM2 shRNA Plasmid (m): sc-155650-SH and ZMYM2 shRNA (m) Lentiviral Particles: sc-155650-V as alternate gene silencing products.

For independent verification of ZMYM2 (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-155650A, sc-155650B and sc-155650C.

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

ZMYM2 siRNA (m) is recommended for the inhibition of ZMYM2 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 ZMYM2 gene expression knockdown using RT-PCR Primer: ZMYM2 (m)-PR: sc-155650-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.