

MLF2 siRNA (h): sc-61059

BACKGROUND

Myeloid leukemia factor (MLF) proteins typically demonstrate highest levels of expression in testis, ovary, skeletal muscle, heart, kidney and colon tissues, and lower levels of expression in spleen, thymus and peripheral blood leukocytes. MLF proteins play a role in normal hemopoietic differentiation as well as in erythroid/myeloid lineage switching. MLF2 is an ubiquitously expressed, 248 amino acid protein which shares 40% sequence identity with myeloid leukemia factor 1 (MLF1). MLF2 maps to chromosome 12p13.31, a region that is often associated with translocations in acute leukemias of lymphoid and myeloid origin. However, no alterations in the structure of the MLF2 locus in patients shown to have 12p translocations have been discovered.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MLF2 (human) mapping to 12p13.31.

PRODUCT

MLF2 siRNA (h) 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 MLF2 shRNA Plasmid (h): sc-61059-SH and MLF2 shRNA (h) Lentiviral Particles: sc-61059-V as alternate gene silencing products.

For independent verification of MLF2 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-61059A, sc-61059B and sc-61059C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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

MLF2 siRNA (h) is recommended for the inhibition of MLF2 expression in human 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.

GENE EXPRESSION MONITORING

MLF2 (A-9): sc-393566 is recommended as a control antibody for monitoring of MLF2 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor MLF2 gene expression knockdown using RT-PCR Primer: MLF2 (h)-PR: sc-61059-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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