

# Myeloid Marker siRNA (h): sc-72128

## BACKGROUND

Myeloid cells originate in the bone marrow during hematopoiesis and encompass all hemopoietic cells except the lymphoid cells (T cells, B cells, NK cells and dendritic cells). Vascular endothelial cells can differentiate from common myeloid progenitors, and these cells that form the bone marrow-derived myeloid lineage express markers such as CD31, von Willebrand factor and Tie2. Other myeloid markers may be used to track certain diseases, such as Kawasaki disease, a self-limited vasculitis that affects many organs, including the skin and mucous membranes, lymph nodes, blood vessel walls and heart.

## REFERENCES

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3. Gabius, S., Joshi, S.S., Gabius, H.J. and Sharp, J.G. 1991. Establishment, characterization and determination of cell surface sugar receptor (lectin) expression by neoglycoenzymes of a human myeloid marker-expressing B lymphoblastoid cell line. *Anticancer Res.* 11: 793-800.
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5. Fujiyama, S., Amano, K., Uehira, K., Yoshida, M., Nishiwaki, Y., Nozawa, Y., Jin, D., Takai, S., Miyazaki, M., Egashira, K., Imada, T., Iwasaka, T. and Matsubara, H. 2003. Bone marrow monocyte lineage cells adhere on injured endothelium in a monocyte chemoattractant protein-1-dependent manner and accelerate reendothelialization as endothelial progenitor cells. *Circ. Res.* 93: 980-989.

## CHROMOSOMAL LOCATION

Genetic locus: MYADM (human) mapping to 19q13.42.

## PRODUCT

Myeloid Marker 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Myeloid Marker shRNA Plasmid (h): sc-72128-SH and Myeloid Marker shRNA (h) Lentiviral Particles: sc-72128-V as alternate gene silencing products.

For independent verification of Myeloid Marker (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-72128A, sc-72128B and sc-72128C.

## 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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

Myeloid Marker siRNA (h) is recommended for the inhibition of Myeloid Marker 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  $\mu$ M in 66  $\mu$ 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

Myeloid Marker (BM-1): sc-59333 is recommended as a control antibody for monitoring of Myeloid Marker 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 $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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 $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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 Myeloid Marker gene expression knockdown using RT-PCR Primer: Myeloid Marker (h)-PR: sc-72128-PR (20  $\mu$ 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.