

# Myeloid Marker (BM-2): sc-59334

## 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

1. Bettelheim, P., Pajetta, E., Majdic, O., Gadner, H., Schwarzmeier, J. and Knapp, W. 1982. Expression of a Myeloid Marker on TdT-positive acute lymphocytic leukemic cells: evidence by double-fluorescence staining. *Blood* 60: 1392-1396.
2. Dolinsky, Z.S., Morse, D.E., Kaplan, R.F., Meyer, R.E., Corry, D. and Pomerleau, O.F. 1987. Neuroendocrine, psychophysiological and subjective reactivity to an alcohol placebo in male alcoholic patients. *Alcohol. Clin. Exp. Res.* 11: 296-300.
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.
4. Welker, P., Grabbe, J., Zuberbier, T., Guhl, S. and Henz, B.M. 2000. Mast cell and Myeloid Marker expression during early *in vitro* mast cell differentiation from human peripheral blood mononuclear cells. *J. Invest. Dermatol.* 114: 44-50.
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.
6. Lin, Y., Roberts, T.J., Sriram, V., Cho, S. and Brutkiewicz, R.R. 2003. Myeloid Marker expression on antiviral CD8<sup>+</sup> T cells following an acute virus infection. *Eur. J. Immunol.* 33: 2736-2743.
7. Viemann, D., Strey, A., Janning, A., Jurk, K., Klimmek, K., Vogl, T., Hirono, K., Ichida, F., Foell, D., Kehrel, B., Gerke, V., Sorg, C. and Roth, J. 2005. Myeloid-related proteins 8 and 14 induce a specific inflammatory response in human microvascular endothelial cells. *Blood* 105: 2955-2962.
8. Bailey, A.S., Willenbring, H., Jiang, S., Anderson, D.A., Schroeder, D.A., Wong, M.H., Grompe, M. and Fleming, W.H. 2006. Myeloid lineage progenitors give rise to vascular endothelium. *Proc. Natl. Acad. Sci. USA* 103: 13156-13161.
9. Frey, A.B. 2006. Myeloid suppressor cells regulate the adaptive immune response to cancer. *J. Clin. Invest.* 116: 2587-2590.

## RESEARCH USE

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

## SOURCE

Myeloid Marker (BM-2) is a mouse monoclonal antibody raised against nuclei from pokeweed mitogen stimulated peripheral lymphocytes of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Myeloid Marker (BM-2) is recommended for detection of an antigen present in the cytoplasm of mature granulocytes and the precursor and mature forms of myeloid cells of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Myeloid Marker siRNA (h): sc-72128, Myeloid Marker shRNA Plasmid (h): sc-72128-SH and Myeloid Marker shRNA (h) Lentiviral Particles: sc-72128-V.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850. 2) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

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