

# Monocytes Marker (74-22-15): sc-52605

## BACKGROUND

A monocyte is a leukocyte produced by the bone marrow from haematopoietic stem cell precursors called monoblasts. Monocytes circulate in the bloodstream and move into tissues throughout the body, where they protect against blood-borne pathogens. Monocytes are responsible for phagocytosis (ingestion) of foreign substances by using intermediary proteins such as antibodies or complements that coat the pathogen, or they can bind directly to the microbe through pattern-recognition receptors that recognize pathogens. Monocytes are also capable of killing infected host cells through a process termed antibody-mediated cellular cytotoxicity. Monocytes that migrate from the bloodstream to other tissues are called macrophages. Macrophages possess a large smooth nucleus, a large area of cytoplasm and many internal vesicles for processing foreign material. Macrophages are suspected to be the predominant cells involved in triggering atherosclerosis. Specific antigens expressed on sets of monocytes or macrophages may aid in the identification of these types of cells.

## REFERENCES

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## SOURCE

Monocytes Marker (74-22-15) is a mouse monoclonal antibody raised against monocytes.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Monocytes Marker (74-22-15) is available conjugated either phycoerythrin (sc-52605 PE, 100 tests in 2 ml) or fluorescein (sc-52605 FITC, 200  $\mu$ g/ml), for IF, IHC(P) and FCM.

## APPLICATIONS

Monocytes Marker (74-22-15) is recommended for detection of over 90% of monocytes and granulocytes and less than 5% of peripheral blood lymphocytes of porcine origin by immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1  $\mu$ g per  $1 \times 10^6$  cells).

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 2) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

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

## 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) or our catalog for detailed protocols and support products.