

Analyte Specific Reagent.

Analytical and performance characteristics are not established.

SPECIFICITY

The CD14 antigen is a glycosyl-phosphatidylinositol-linked single-chain surface membrane glycoprotein with a molecular weight of 53-55 kDa.

CD14 is found on cells of myelomonocytic lineage. It is strongly expressed on monocytes, macrophages, and weakly on neutrophils (1, 2). It is also present on pleural phagocytic cells and on reticular dendritic cells, on Langerhans cells, and histiocytes (3, 4). CD14 is not expressed on B lymphocytes, T lymphocytes, NK cells, red blood cells and platelets.

The RMO52 monoclonal antibody does not react with T or B lymphocytes (1, 2). It has been assigned to the CD14 cluster of differentiation during the 6th International Workshop on Human Leucocyte Differentiation Antigens in Kobe, Japan, in 1996 (WS Code: MA62) (5).

REAGENT

IOTest CD14-ECD Conjugated Antibody

PN IM2707U – 1 mL Liquid – 10 µL / test*.

Clone RMO52

Isotype IgG2a

Species Mouse

Immunogen Isolated human monocytes

Hybridoma SP2/O x Balb/c

Source Ascites fluid

Purification Ion exchange or affinity chromatography

Conjugation ECD: The Ig is conjugated to a tandem dye constituted of R-phycoerythrin covalently linked to texas red at 0.8-1 mole of ECD per mole of Ig.

Excitation wavelength: 488 nm

Maximum emission wavelength: 613 nm

Main emission color: Red

Buffer 2 mg/mL bovine serum albumin in phosphate-buffered saline containing 0.1% sodium azide.

STATEMENT OF WARNINGS

1. This reagent contains 0.1% sodium azide. Sodium azide under acid conditions yields hydrazoic acid, an extremely toxic compound. Azide

compounds should be flushed with running water while being discarded.

These precautions are recommended to avoid deposits in metal piping in which explosive conditions can develop. If skin or eye contact occurs, wash excessively with water.

2. Specimens, samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
3. Never pipet by mouth and avoid contact of samples with skin and mucous membranes
4. Do not use antibody beyond the expiration date on the label.
5. Do not expose reagents to strong light during storage or incubation.
6. Avoid microbial contamination of reagents or incorrect results might occur.
7. Use good laboratory practices when handling this reagent.

STORAGE CONDITIONS AND STABILITY

This reagent is stable up to the expiration date when stored at 2 – 8°C. Do not freeze. Minimize exposure to light.

EVIDENCE OF DETERIORATION

Any change in the physical appearance of this ECD-labeled reagent (clear, colorless to pinkish liquid) or any major variation in values obtained for control samples may indicate deterioration and the reagent should not be used.

REAGENT PREPARATION

No reconstitution is necessary. This monoclonal antibody may be used directly from the vial. Bring reagent to 18 – 25°C prior to use.

SELECTED RESEARCH REFERENCES

1. Todd III, R.F., Nadler, L.M., Schlossman, S.F., "Antigens on human monocytes identified by monoclonal antibodies", 1981, J. Immunol., 126, 1435-1442.
2. Todd, R.F., van Agthoven, A., Schlossmann, S.F., Terhorst, C., "Structural analysis of differentiation antigens Mo1 and Mo2 on human

monocytes", 1982, Hybridoma, 1, 329-337.

3. Peters, J.H., Ruppert, J., Gieseler, R.K.H., Najar, H.M., Xu, H., "Differentiation of human monocytes into CD14 negative accessory cells: do dendritic cells derive from the monocytic lineage?", 1991, Pathobiology, 59, 122-126.
4. Ziegler-Heitbrock, H.W.L., Ulevitch, R.J., "CD14: Cell surface receptor and differentiation markers", 1993, Immunol. Today, 14, 121-125.
5. Goyert, S.M., Cohen, L., Gangloff, S.C., Ashmun, R., Haeffner-Cavaillon, N., "CD14 Workshop panel report", 1997, Leucocyte Typing VI, White Cell Differentiation Antigens. Kishimoto, T., et al, Eds., Garland Publishing, Inc., 963-965.

PRODUCT AVAILABILITY

IOTest CD14-ECD Conjugated Antibodies
PN IM2707U – 1 mL Liquid – 10 µL / test*.

ECD is licensed under patent 4,520,104.

For additional information in the USA, call 800-526-7694.

Outside the USA, contact your local Beckman Coulter representative.

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(*): 10 µL is the quantity of product sufficient to stain

5 x 10⁵ cells in a standard immunofluorescence assay

