IOTest® CD122 (IL-2Rβ)-PC7

PN A53365 - 100 tests - 10 µL/test - Clone CF1

For Research Use Only. Not For Use In Diagnostic Procedures.

SPECIFICITY

The CD122 antigen, also called human IL2 receptor beta chain (IL-2R β-chain), is the 75-kDa subunit that associates with CD25 (α-subunit, p55) and CD132 (γ-subunit) to form the high-affinity interleukin-2 receptor (1). It is also a component of the IL-15 receptor (1, 2). The CD122 antigen is expressed on NK cells, B, T lymphocytes and monocytes.

It can directly bind IL-2 and mediates signal transduction leading to T lymphocytes and NK activation (3 – 6).

The CF1 monoclonal antibody (mAb) reacts with an external epitope of the human IL-2Rβ chain/p75 (7). It is a non-blocking antibody since it does not inhibit IL-2 binding (8).

The CF1 mAb has been assigned to the CD122 cluster of differentiation at the Vth International Workshop on Human Leukocyte Differentiation Antigens in Boston, 1993 (9).

It was also studied during the VIth International Workshop on Human Leukocyte Differentiation Antigens held in Kobe, Japan, in 1996 (10, 11).

REAGENT

IOTest CD122 (IL-2Rβ)-PC7 Conjugated Antibody

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Clone	CF1
Isotype	IgG1, mouse
Immunogen	Murine thymoma transfected with human IL-2 Rβ/p75
Hybridoma	Myeloma Sp2/0 X AKR spleen cells
Source	Ascites fluid
Purification	Ion exchange or affinity chromatography
Conjugation	PC7: the IgG is conjugated to a tandem dye constituted of R-phycoerythrin covalently linked to cyanine 7 (indotri-carbocyanine) at 0.5 – 1.5 mole of PC7 per mole of Ig.

Excitation wavelength: 488 nm

Emission wavelength range: 750 – 810 nm

Main emission color: Far red

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

APPLICATION

Flow cytometry.

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.

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.

PRECAUTIONS

Due to the tandem structure of the fluorochrome, PC7 also emits light at 575 nm. This secondary emission peak varies from lot-to-lot of PC7. Therefore, for multi-color analysis, the compensation matrix should be carefully checked when changing the lot of a PC7-conjugate.

PROCEDURE

This reagent is designed for Flow Cytometry.

Assay volume: 10 µL per 5 x 10^5 cells in one test, or per 100 µL whole blood.

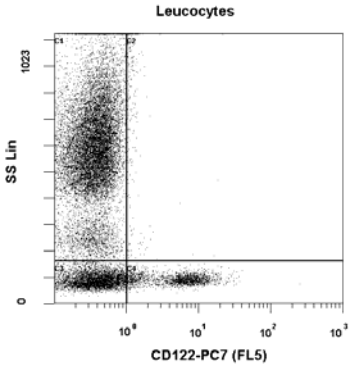
To get optimal results with whole blood samples, we recommend the use of VersaLyse™ Lysing Solution (PN IM3648) with the concomitant fixation using the IOTest 3 Fixative Solution (PN IM3515), followed by a wash step. A detailed procedure may be found in the VersaLyse package insert.

EXAMPLE DATA

The histogram below is a biparametric representation (Side Scatter *versus* Fluorescence Intensity) of a normal whole blood sample stained with the IOTest CD122-PC7 Conjugated Antibody (PN A53365) and lysed according to the procedure recommended above.

Acquisition is with a Beckman Coulter FC 500 flow cytometer equipped with the CXP analysis software.

All the leucocytes are represented.



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PRODUCT AVAILABILITY

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