

CD123 (9F5)

Form	Catalog number
PE	340545
APC	658171

Product availability varies by region. Contact BD Biosciences Customer Support or your local sales representative for information.

RESEARCH APPLICATIONS

Research applications include:

- Analysis of interleukin-3 (IL-3)–dependent differentiation and proliferation¹
- Immunophenotyping of leukemias and lymphomas²
- Characterization of precursor stem cell populations³
- Investigation of dendritic cell subpopulations³⁻⁷
- Enumeration of basophils⁸⁻¹¹

DESCRIPTION

Specificity

The CD123 antibody recognizes a 70-kilodalton (kDa) type I integral membrane glycoprotein, also known as the interleukin-3 receptor α -chain (IL-3R α).¹²

Antigen distribution

The CD123 antigen is expressed on a subset of peripheral blood dendritic cells,^{3,5-7} on a subset of progenitor cells,³ monocytes,¹³ eosinophils,¹³ mast cells,¹⁴ and basophils.⁸⁻¹¹ The expression of CD123 is induced when isolated neutrophils are cultured overnight with granulocyte-macrophage colony-stimulating factor (GM-CSF).¹⁵ Since IL-3 stimulates the production of hematopoietic cells, such as megakaryocytes, erythroid cells, and B cells, it is assumed that these lineages can also express the CD123 antigen.¹³

The CD123 antigen binds IL-3 with low affinity and associates with the 120–140 kDa β chain (CD131) to form the high affinity IL-3 receptor. The β chain is common to the receptors for IL-5 and GM-CSF.¹⁶

Clone

The CD123 antibody, clone 9F5,¹⁶ is derived from the hybridization of NS-1 mouse myeloma cells with spleen cells isolated from BALB/c mice immunized with IL-3R α –transfected COS cells.¹³

Composition

The CD123 antibody is composed of mouse IgG₁ heavy chains and kappa light chains.

Product configuration

The following are supplied in phosphate buffered saline (PBS) containing a stabilizer and a preservative.

Form	Number of tests	Volume per test (μ L) ^a	Amount provided (μ g)	Total volume (mL)	Concentration (μ g/mL)	Stabilizer	Preservative
PE	50	20	12.5	1.0	12.5	Gelatin	0.1% Sodium azide
APC	100	5	12.5	0.5	25	Gelatin	0.1% Sodium azide

a. Volume required to stain 10⁶ cells.

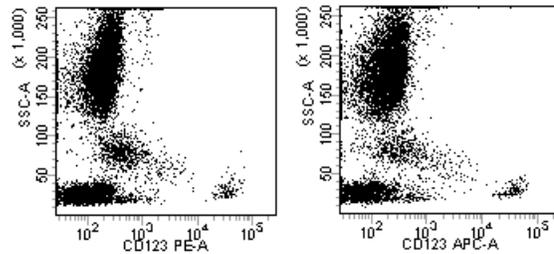
For Research Use Only. Not for use in diagnostic or therapeutic procedures.

PROCEDURE

Visit our website (bdbiosciences.com) or contact your local BD representative for the lyse/wash protocol for direct immunofluorescence.

REPRESENTATIVE DATA

Flow cytometric analysis was performed on normal whole blood stained with the indicated conjugated antibody. Laser excitation was at 488 nm or 635 nm. Representative data analyzed with a BD FACS™ brand flow cytometer is shown in the following plots.



HANDLING AND STORAGE

Store vials at 2°C–8°C. Conjugated forms should not be frozen. Protect from exposure to light. Each reagent is stable until the expiration date shown on the bottle label when stored as directed.

WARNING

All biological specimens and materials coming in contact with them are considered biohazards. Handle as if capable of transmitting infection^{17,18} and dispose of with proper precautions in accordance with federal, state, and local regulations. Never pipette by mouth. Wear suitable protective clothing, eyewear, and gloves.

CHARACTERIZATION

To ensure consistently high-quality reagents, each lot of antibody is tested for conformance with characteristics of a standard reagent. Representative flow cytometric data is included in this data sheet.

WARRANTY

Unless otherwise indicated in any applicable BD general conditions of sale for non-US customers, the following warranty applies to the purchase of these products.

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