

Monoclonal Antibodies Detecting Human Antigens



CD71 (L01.1)

Form	Catalog number
Pure	347510
FITC	347513
APC	341028

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

RESEARCH APPLICATIONS

Research applications include studies of:

- Discrimination of activated lymphocytes from resting lymphocytes^{1,2}
- Analysis of metabolic activation or cellular proliferation³
- Erythropoiesis⁴

DESCRIPTION

Specificity

The CD71 antibody is specific for the human transferrin receptor, with a molecular weight of 190 kilodaltons (kDa), 90-kDa reduced.⁵

Antigen distribution

The CD71 antigen expression is low on normal resting lymphocytes⁶ and is expressed on all cells upon activation.⁷ The transferrin receptor is essential for iron transport into proliferating cells,³ such as mitogen-activated¹ and alloantigen-activated² lymphoblasts. The transferrin receptor is also present on early erythroid cells but is lost as reticulocytes differentiate into mature erythrocytes.⁴

Clone

The CD71 antibody, clone L01.1, is derived from the hybridization of P3-X63- Ag8.653 mouse myeloma cells with spleen cells from BALB/c mice immunized with blast cells from pokeweed mitogen-stimulated peripheral blood cells.³

Composition

The CD71 antibody is composed of mouse IgG_{2a} 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 (μL) ^a	Amount provided (μg)	Total volume (mL)	Concentration (μg/mL)	Stabilizer	Preservative
Pure	100	20	200	2.0	100	Gelatin	0.1% Sodium azide
FITC	100	20	200	2.0	100	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.

PROCEDURE

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

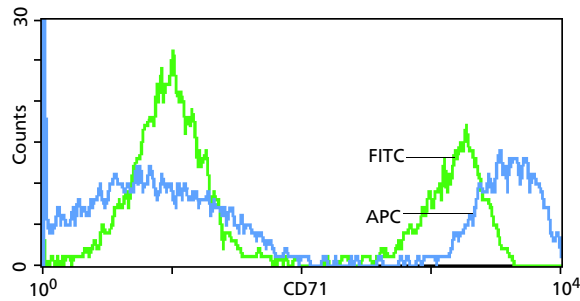
REPRESENTATIVE DATA

Flow cytometric analysis was performed on whole blood with CD71⁺ Raji cells and gated on lymphocytes, monocytes, and Raji cells. Laser excitation was at 488 nm and 635 nm. Representative data analyzed with a BD FACS™ brand flow cytometer is shown in the following figure.

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

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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^{8,9} 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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