Monoclonal Antibodies
Detecting Human Antigens

CD134 (L106)

Form Catalog number
PE 340420

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RESEARCH APPLICATIONS

Research applications include:

• Studies of T-lymphocyte activation
• Investigation of T-lymphocyte proliferation

DESCRIPTION

Specificity

The CD134 (Anti-Human Ox 40) antibody recognizes a 50-kilodalton (kDa) antigen that is present on activated T lymphocytes. By sequence analysis, it is related to the rat monoclonal antibody Ox 40, a member of the nerve growth factor superfamily that also includes CD27, CD30, CD40, CD95 (Fas), and the tumor necrosis factors alpha and beta (CD120a and CD120b).1,2,4,5

Antigen distribution

The CD134 antigen (Human Ox 40) is found on activated peripheral CD4+ T lymphocytes and a subset of activated CD8+ T lymphocytes. It is not expressed on CD3-activated purified CD8+ T lymphocytes.2 It is also present on HUT-102, an HTLV-1–infected T-lymphocyte line.6 Its ligand, gp34, is found on Epstein Barr virus (EBV)–transformed B lymphocytes.2 Preliminary evidence suggests a possible role for CD134 antigen in graft rejection.6,7

Clone

The CD134 antibody, clone L106, is derived from hybridization of Sp2/0 mouse cells with spleen cells from BALB/c mice immunized with phytohemagglutinin-activated T lymphocytes.

Composition

The CD134 antibody is composed of mouse IgG1 heavy chains and kappa light chains.

Product configuration

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

<table>
<thead>
<tr>
<th>Form</th>
<th>Number of tests</th>
<th>Volume per test (µL)a</th>
<th>Amount provided (µg)</th>
<th>Total volume (mL)</th>
<th>Concentration (µg/mL)</th>
<th>Stabilizer</th>
<th>Preservative</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE</td>
<td>50</td>
<td>20</td>
<td>12.5</td>
<td>1.0</td>
<td>12.5</td>
<td>Gelatin</td>
<td>0.1% Sodium azide</td>
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</tbody>
</table>

a. Volume required to stain 10^6 cells.

PROCEDURE

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

Method for direct immunofluorescence

Add 20 µL reagent to 100 µL activated whole blood in a staining tube. Mix thoroughly and incubate for 15 to 30 minutes at room temperature in the dark. Add 2 mL of 1X BD FACSTM lysing solution (Cat. No. 349202) at room temperature and vortex tube thoroughly. Incubate for 10 to 12 minutes at room temperature in the dark. Wash cells

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with 1X PBS with 0.1% sodium azide, add 0.5 mL of 1% paraformaldehyde, mix thoroughly, and analyze. If samples will not be analyzed immediately, mix thoroughly just prior to analysis. For more information, refer to the BD FACS Lysing Solution package insert.

**REPRESENTATIVE DATA**

Flow cytometric analysis was performed on lysed whole blood with a gate set on the lymphocyte population, including the blast-cell population. Laser excitation was at 488 nm.

**Figure 1** Activated peripheral blood lymphocytes analyzed with a BD FACScan™ flow cytometer

![Flow cytometric analysis](image)

**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 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.

THE PRODUCTS SOLD HEREUNDER ARE WARRANTED ONLY TO CONFORM TO THE QUANTITY AND CONTENTS STATED ON THE LABEL OR IN THE PRODUCT LABELING AT THE TIME OF DELIVERY TO THE CUSTOMER. BD DISCLAIMS HEREBY ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE AND NONINFRINGEMENT. BD’S SOLE LIABILITY IS LIMITED TO EITHER REPLACEMENT OF THE PRODUCTS OR REFUND OF THE PURCHASE PRICE. BD IS NOT LIABLE FOR PROPERTY DAMAGE OR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING PERSONAL INJURY, OR ECONOMIC LOSS, CAUSED BY THE PRODUCT.

**REFERENCES**


