

Conjugated Antibody IOTest[®] CD58-APC

PN IM3701- 100 tests – Liquid - 10 µL/test - Clone AICD58

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

SPECIFICITY

The CD58 molecule (also known as Lymphocyte-Function Associated Antigen 3 – LFA3) is a glycoprotein with a molecular weight ranging from 55 to 70 kDa that belongs to the immunoglobulin (Ig) superfamily. The extracellular part of the molecule consists of two Ig-like domains with six potential N-linked glycosylation sites. The domain proximal to the cellular membrane is a C2-type Ig-like domain whereas the domain distal to the cellular membrane is a V-type Ig-like domain and lacks the disulfide bond.

Alternative splicing gives rise to either transmembrane or glycosyl-phosphatidylinositol (GPI) anchored forms.

The CD58 antigen is expressed on most hematopoietic cells such as T and B lymphocytes, NK cells, monocytes, granulocytes, circulating dendritic subsets, and erythrocytes. It is also expressed on various non-hematopoietic cells, such as fibroblasts, endothelial and epithelial cells.

The CD58 antigen (LFA3) was first described, together with LFA1 (CD11a/CD18) and LFA2 (CD2), as participating in various immunological responses via effector lymphocyte adhesion and activation. It functions as a triggering molecule and mediates its signal through CD2, known as the ligand of CD58, expressed on T lymphocytes and NK cells. Inhibitory studies have shown that the AICD58 monoclonal antibody (mAb) doesn't block human erythrocyte rosetting (1, 2). The AICD58 mAb was assigned to the CD58 cluster of differentiation during the 5th Human Leucocyte Differentiation Antigen (HLDA) international workshop, held in Boston, USA, in 1993 (WS Code: S029, Section AS) (1). It was used as a reference clone (WS Code: Ref. 28 Section AS, WS Code: 25 Section BP, and WS Code: 72 Section BP) during the 6th HLDA workshop held in Kobe, Japan, in 1996 (2).

REAGENT

IOTest CD58-APC Conjugated Antibody
PN IM3701 - 100 tests - Liquid - 10µL/test*

Clone	AICD58
Isotype	IgG2a, Mouse
Immunogen	PHA blast
Hybridoma	Myeloma x63 Ag 8.653 x Balb/c
Source	Ascites fluid
Purification	Ion exchange or affinity chromatography
Conjugation	Allophycocyanin (APC)
Molar Ratio	APC / Ig : 0.5 - 1.5
Fluorescence	Excites at 633-635 nm Emits at 650-680 nm

REAGENT CONTENTS

This antibody is provided in phosphate-buffered saline, containing 0.1% sodium azide and 2 mg/mL bovine serum albumin.

APPLICATION

Flow cytometry.

STATEMENTS OF WARNING

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.

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.

PROCEDURE

This reagent is designed for Flow Cytometry. Assay volume: 10 µL per 5 x 10⁵ cells in one test, or per 100 µL whole blood. It is recommended to establish the right range of antibody dilutions to be used for the experiment.

SELECTED RESEARCH REFERENCES

1. Klickstein, L.B., Springer, T.A., "CD58 cluster report", 1995, Leucocyte Typing V, White Cell Differentiation Antigens. Kishimoto, T., et al, Eds., Garland Publishing, Inc., 1475-1476.
2. Takeuchi, E., Tanaka, T., Goda, K., Miyasaka, M., "CD58 Workshop Panel report", 1997, Leucocyte Typing VI, White Cell Differentiation Antigens. Kishimoto, T., et al, Eds., Garland Publishing, Inc., 414-415.

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