

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

SPECIFICITY

The CD35 molecule (also known as complement receptor 1 (CR1), C3b/C4b receptor) is a member of a structurally and functionally related group of cell surface and serum glycoproteins termed regulators of complement activation (RCA) (1). Proteins issued from the RCA gene family (i.e. CD21, CD35, CD46, CD55, factor H, C4bp) contain repeated modules termed complement control protein (CCP) domains (1, 2).

The CD35 antigen is a polymorphic molecule regrouping 4 allotypes with a molecular weight of 160, 190, 220, and 250 kDa respectively. The extracellular domain of the most common allotype is composed of 30 CCP domains.

The CD35 molecule is expressed on erythrocytes, B lymphocytes, a subset of T lymphocytes, monocytes, neutrophils, eosinophils, follicular dendritic cells, astrocytes, and kidney glomerular podocytes (1, 2). Platelets, basophils, and most T lymphocytes do not express the CD35 antigen (1).

The CD35 molecule is involved in the induction and regulation of immunity like other members of the RCA family (3, 4). The J3.D3 monoclonal antibody recognizes the C3b receptor (CR1) (2, 5). It has been assigned to the CD35 cluster of differentiation at the 3rd International Workshop on Human Leucocyte Differentiation Antigens in Oxford, England, in 1986 (WS Code: 212, section M) (2).

REAGENT

IOTest CD35-FITC Conjugated Antibody
PN IM1836 – 100 tests – Liquid - 20 µL / test.

Clone	J3.D3
Isotype	IgG1, kappa mouse
Immunogen	Purified C3b receptor from human red blood cells
Hybridoma	Myeloma NS1 x balb/c spleen cells
Source	Ascites fluid
Purification	Ion exchange or affinity chromatography
Conjugation	Fluorescein isothiocyanate (FITC)
Molar Ratio	FITC / Ig : 5 – 7
Fluorescence	Excites at 468 – 509 nm Emits at 504 – 541 nm

REAGENT CONTENTS

This antibody is provided in phosphate-buffered saline pH 7.4, 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 they might transmit 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 in the dark. Do not freeze.

PROCEDURE

This reagent is designed for flow cytometry.

A wash is required to yield optimal results

Assay volume: 20 µL per 5 x 10⁵ cells in one test, or per 100 µL whole blood.

SELECTED RESEARCH REFERENCES

1. Nickells, M.W., Marsh Jr, H.C., Atkinson, J.P., "CD35 Workshop Panel report", 1997, Leucocyte Typing VI, White Cell Differentiation Antigens, Kishimoto, T., et al, Eds., Garland Publishing, Inc., 984-988.
2. Hogg, N., Horton, M.A., "Myeloid antigens, new and previously defined cluster", 1987, Leucocyte Typing III, White Cell Differentiation Antigens, McMichael A.J., et al., Eds., Oxford University Press, 576-602.
3. Carroll, M.C., "The role of complement and complement receptors in induction and regulation of immunity", 1998, Annu. Rev. Immunol., 16, 545-568.
4. Carroll, M.C., "CD21/CD35 in B cell activation", 1998, Immunology, 10, 279-286.
5. Cook, J., Fischer, E., Boucheix, C., Mirsrahi, M., Jouvin, M.H., Weiss, L., Jack, R.M., Kazatchkine, M.D., "Mouse monoclonal antibodies to the human C3b receptor", 1985, Mol. Immunol., 5, 22, 531-539.

TRADEMARKS AND PATENTS

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