

Monoclonal Antibody CD2

PN IM0395 – Purified – Freeze-dried – 0.2 mg – Clone 39C1.5

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

SPECIFICITY

The CD2 antigen (LFA-2) is a monomeric 50 kDa glycoprotein which was formerly described as receptor for sheep red blood cells rosetting of T cells (1) and identified as LFA-3 (CD58) ligand (2, 3). It is also receptor for CD48 (4, 5), CD59 (6, 7), and CD15 binds to multimeric CD2. CD2 is present on the majority of normal human peripheral blood T lymphocytes and on a high percentage of Natural Killer (NK) cells. It is also expressed by all thymocytes (8).

39C1.5 antibody inhibits sheep erythrocyte rosette formation. The combination of 6F10.3 (PN IM0180) and 39C1.5 monoclonal antibodies activates T cell in vitro.

The 39C1.5 monoclonal antibody has been assigned to the CD2 cluster of differentiation during the second International Workshop on Human Leucocyte Differentiation Antigens held in Boston, USA in 1984 (9).

REAGENT

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0.2 mg

Clone	39C1.5
Isotype	IgG2a, rat
Immunogen	Human PHA-stimulated lymphocytic blasts
Hybridoma	P3-X63-Ag.8.653 x rat spleen cells
Source	Ascites fluid
Purification	Ion exchange chromatography
Buffer	1 mg/mL bovine serum albumin in phosphate-buffered saline

APPLICATION

Studies of CD2 positive cells by flow cytometry.

STATEMENT OF WARNINGS

1. 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.
2. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.

3. Do not use antibody beyond the expiration date on the label.
4. Avoid microbial contamination of reagents or incorrect results might occur.
5. Use good laboratory practices when handling this reagent.

STORAGE CONDITIONS AND STABILITY

This freeze-dried form may be stored at 2 – 8°C until the expiration date stated on the vial label.

No preservative has been added.

REAGENT PREPARATION

Depending of usage, reconstitute with 1 mL of distilled water, with or without 0.1% sodium azide (w/v).

The reconstituted form including 0.1% sodium azide may be stored for up to one month at 2 – 8°C.

The reconstituted form without sodium azide can be stored at –20°C or less, until the expiration date stated on the vial label.

In this case, aliquotting is recommended to avoid multiple freezing / thawing cycles.

PROCEDURE

For each application, it is recommended to establish the right range of antibody dilutions to be used for the experiment.

SELECTED RESEARCH REFERENCES

1. Davis, S.J., Van Der Merwe, P.A., "The structure and ligand interactions of CD2 : implications for T-cell function", 1996, *Immunol. Today*, 17, 177-187.
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3. Denning, S.M., Dustin, M.L., Springer, T.A., Singer, K.H., Haynes, B.F., "Purified lymphocyte function-associated antigen-3 (LFA-3) activates human thymocytes via the CD2 pathway", 1988, *J. Immunol.*, 141, 2980-2985.
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5. Arulanandam, A.R., Moingeon, P., Concino, M.F., Recny, M.A., Kato, K., Yagita, H., Koyasu, S., Reinherz, E.L., "A

soluble multimeric recombinant CD2 protein identifies CD48 as a low affinity ligand for human CD2 : divergence of CD2 ligands during the evolution of humans and mice", 1993, *J. Exp. Med.*, 177, 1439-1450.

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8. Bierber, B.E., Bogart, R.E., Wolff, I.H., Burkakoff, S.J., "Functional analysis of CD2 Mab reactivity", 1989, *Leucocyte Typing IV, White Cell Differentiation Antigens*. W. Knapp, et al., Eds., Oxford University Press, 274-277.
9. Bernard, A., Brottier, P., Georget, E., Lepage, V., Boumsell, L., "The epitopic dissection of the CD2 defined molecule: relationship of the second workshop antibodies in terms of reactivities with leukocytes, rosette blocking properties, induction of positive modulation of the molecule, and triggering T cell activation", 1985, *Leucocyte Typing II, Human T lymphocytes*, Reinherz, E.L., et al. Eds., 55-59.

PRODUCT AVAILABILITY

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For additional information in the USA, call 800-526-7694.

Outside the USA, contact your local Beckman Coulter representative.

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