

MONOCLONAL ANTIBODY CD2

Cat. No.	Form	Quantity	Presentation
0395	Purified	0.2 mg	Freeze-dried
0397	Biotin	0.2 mg	Freeze-dried
0441	Purified	100 tests	Liquid 2 ml
0442	FITC	100 tests	Liquid 2 ml
0443	Phycoerythrin	100 tests	Liquid 2 ml
1953	PE-Cy5	100 tests	Liquid 2 ml

Clone 39C1.5

Isotype IgG2a (rat)

Immunogen Human PHA-stimulated lymphocytic blasts.

Hybridoma Myeloma X63Ag8.653 x rat spleen cells

Specificity CD2 is a 50kDa single chain transmembrane glycoprotein

CD2 is a human T-lymphocyte antigen originally defined as the sheep erythrocyte receptor.

The natural ligand for the CD2 is the Lymphocyte function associated antigen 3 (LFA-3) or CD58 expressed on leucocytes, erythrocytes and endothelial cells.

The CD58-CD2 interaction is an essential component of intracellular adhesion and T cell activation (4,5).

Several epitopes can be distinguished on the CD2 molecule. The antibody 39C1.5 reacts with the T11-1 epitope. The antibody 6F10.3 (see cat No. 0180) reacts with the T11-2 epitope. A combination of these monoclonal antibodies is strongly mitogenic in the presence of TPA.

CD2 is present on all peripheral T cells, on over 95% of thymocytes, and on natural killer cells, but not on B cells (7).

The antibody 39C1.5 can inhibit the formation of sheep erythrocyte rosettes.

Applications Research studies of T-cell functions

Buffer Freeze-dried forms: 1 mg/ml bovine serum albumin in phosphate buffered saline.

Liquid forms: 2 mg/ml bovine serum albumin in phosphate buffered saline containing 0.1% sodium azide. 1 mg/ml bovine serum albumin in phosphate buffered saline.

February 1, 1996

MA001

FOR RESEARCH USE ONLY - NOT FOR USE IN DIAGNOSTIC PROCEDURES



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Conjugates

FITC: fluorescein isothiocyanate conjugated (3 to 7 moles of FITC/mole of IgG)
Excitation wavelength : 488 nm, maximum emission wavelength : 525 nm.
Main emission color: green

Phycoerythrin: R-Phycoerythrin conjugated (1 mole of phycoerythrin/mole of IgG).
Excitation wavelength : 488 nm, maximum emission wavelength : 575 nm
Main emission color: orange-red

PE-Cy5: The IgG is conjugated to a tandem dye, constituted of R-Phycoerythrin covalently linked to Cyanine 5.
Excitation wavelength : 488 nm, maximum emission wavelength : 670 nm.
Main mission color: deep-red

Limitation : PE-Cy5 conjugates are recommended for use only on flow cytometers equipped with a 675 nm band pass filter in front of the third fluorescence detector.

Reconstitution and Storage

The freeze-dried form may be stored at 2-8°C until the expiration date. Reconstitute with 1 ml of distilled water. No preservative has been added. The reconstituted form may be stored at -20°C until the expiration date. Aliquoting is suggested to avoid multiple freeze-thaw cycles. The addition of sodium azide at 0.1% (w/v) is recommended for storage of the reconstituted form for up to one month at 2-8°C.

The purified liquid form should be stored at 2 - 8°C.

The conjugated forms should not be frozen and should be stored in the dark at 2 - 8°C.

Recommended Procedures

Fluorescent microscopy or flow cytometry:

Liquid form: 20 μ l/5x10⁵ cells/test or 100 μ l whole blood

Freeze-dried form: 2 μ g/5x10⁵ cells/test

References

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