

PN IM3056 Monoclonal Antibody RAT CD4-FITC

Form	FITC	Clone	W3/25
Quantity	100 tests	Isotype	IgG1
Presentation	Liquid 1 mL	Species	mouse
Purity	Protein A affinity chromatography purified IgG from tissue culture supernatant		

For Research Use Only. Not For Use In Diagnostic Procedures.

SPECIFICITY

W3/25 recognizes cell surface rat CD4 molecule (45-50 kDa). It labels helper T cells, thymocytes and macrophages, but not natural killer cells (1-11).

APPLICATIONS

This antibody is designed for flow cytometry.

BUFFER

This antibody is supplied in phosphate-buffered saline (PBS) pH 7.4, containing 0.1% sodium azide (NaN₃) and 1% bovine serum albumin (BSA).

STORAGE CONDITIONS AND STABILITY

This reagent is stable up to the expiration date when stored at 2 - 8°C. Avoid repeated freezing and thawing. Minimize exposure to light and warmth.

CONJUGATION

Fluorescein isothiocyanate (FITC) is conjugated at 3.1 moles of FITC per mole of IgG.

Excitation wavelength: 488 nm
 Maximum emission wavelength: 525 nm
 Main emission color: Green

REAGENT PREPARATION

No reconstitution is necessary. This monoclonal antibody may be used directly from the vial. Bring reagent to 20 - 25°C prior to use.

PROCEDURE

Flow Cytometry: Use 10 µL to label 10⁶ cells. It is recommended that the user titrates the antibody for use in her/his own system using appropriate negative / positive controls.

STATEMENT OF WARNINGS

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.

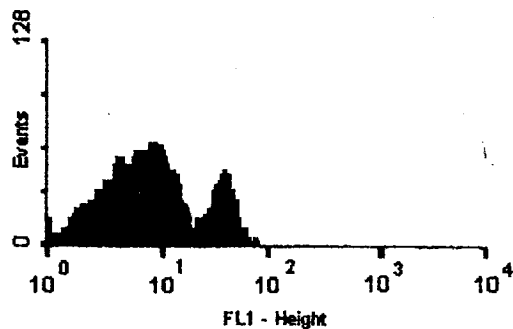
2. Never pipet by mouth.
3. Do not use antibody beyond the expiration date on the label.
4. Do not expose reagents to strong light during storage or incubation.
5. Avoid microbial contamination of reagents or incorrect results might occur.

CONJUGATES AVAILABLE

- CD4-PE (IM3057)
- CD4-BIOTIN (IM3058)

EXAMPLE DATA

The graph below shows representative results of staining obtained with this antibody on rat spleen cells.



SELECTED RESEARCH REFERENCES

1. [4364] Barclay, A.N., "The localization of populations of lymphocytes defined by monoclonal antibodies in rat lymphoid tissues", 1981, Immunology, 42, 593-600.

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2. [4370] Davis, S.J., Brady, R.L., Barclay, A.N., Harlos, K., Dodson, G.G., Williams, A.F., "Crystallization of a soluble form of the rat T-cell surface glycoprotein CD4 complexed with Fab from the W3/25 monoclonal antibody", 1990, *J. Mol. Biol.*, 213, 7-10.
3. [4372] Clark, S.J., Jefferies, W.A., Barclay, A.N., Gagnon, J., Williams, A.F., "Peptide and nucleotide sequences of rat CD4 (W3/25) antigen: Evidence for derivation from a structure with four immunoglobulin-related domains", 1987, *Proc. Natl. Acad. Sci. USA*, 84, 1649-1653.
4. [4374] Dallman, M.J., Thomas, M.L., Green, J.R., "MRC OX-19: A monoclonal antibody that labels rat T lymphocytes and augments in vitro proliferative responses", 1984, *Eur. J. Immunol.*, 14, 260-267.
5. [4376] Cantrell, D.A., Robins, R.A., Brooks, C.G., Baldwin, R.W., "Phenotype of rat natural killer cells defined by monoclonal antibodies marking rat lymphocyte subsets", 1982, *Immunology*, 45, 97-103.
6. [4408] Thomas, M.L., Green, J.R., "Molecular nature of the W3/25 and MRC OX-8 marker antigens for rat T lymphocytes: Comparisons with mouse and human antigens", 1983, *Eur. J. Immunol.*, 13, 855-858.
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9. [4414] Dallman, M.J., Mason, D.W., Webb, M., "The role of host and donor cells in the rejection of skin allografts by T cell deprived rats injected with syngeneic T cells", 1982, *Eur. J. Immunol.*, 12, 511-518.
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11. [4531] Brideau, J.R., Carter, P.B., Mc Master, R., Mason, D.W., Williams, A.F., "Two subsets of rat T lymphocytes defined with monoclonal antibodies", 1980, *Eur. J. Immunol.*, 10, 609-615.