

PN IM3057 Monoclonal Antibody RAT CD4-PE

Form	PE	Clone	W3/25
Quantity	100 tests	Isotype	IgG1
Presentation	Freeze-dried	Species	mouse
Purity	Purified IgG		

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

SPECIFICITY

W3/25 recognizes cell surface rat CD4 molecule (45-53 kDa). It labels helper T cells, thymocytes and macrophages, but not natural killer cells (1-11).

APPLICATIONS

This antibody is designed for flow cytometry.

B. ER

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. Do not freeze. Minimize exposure to light and warmth.

CONJUGATION

R-phycoerythrin (PE) conjugated antibody.

Excitation wavelength: 488 nm

Maximum emission wavelength: 575 nm

Main emission color: Orange-red

REAGENT PREPARATION

This monoclonal antibody is provided in freeze-dried form and must be reconstituted with 1mL of distilled water. 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.

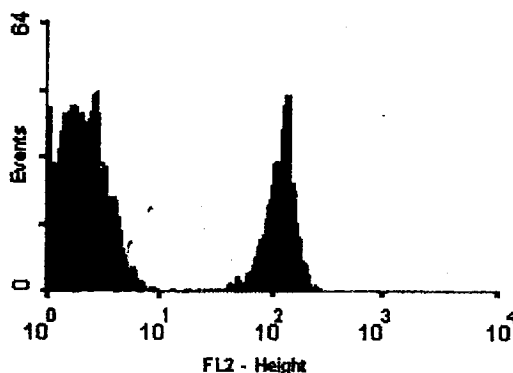
CONJUGATES AVAILABLE

CD4-FITC (IM3056)

CD4-BIOTIN (IM3058)

EXAMPLE DATA

The graph below shows representative results of staining obtained with this antibody on rat peripheral blood lymphocytes.



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.
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.

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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.
10. [4455] Windmill, K.F., Meade, B.J., Lee, V.M.K., "Effect of prepubertal gonadectomy and sex steroid treatment on the growth and lymphocyte populations of the rat thymus", 1993, *Reprod. Fertil. Dev.*, 5, 73-81.
11. [4531] Brideau, J.R., Carter, P.B., Mc Master, R., Mason, D.W., William, A.F., "Two subsets of rat T lymphocytes defined with monoclonal antibodies", 1980, *Eur. J. Immunol.*, 10, 609-615.