



# PN IM3602 TCR Vβ4-PE

(WJF24)

50 tests  
20µL / test

# IOTest®

Conjugated Antibodies

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

### SPECIFICITY

Human variable β4 chain of the T-cell receptor (Vβ4) is also called TCRBV4, according to the nomenclature from Wei et al. (1).

The monoclonal antibody WJF4 recognizes the Vβ4 allele product (DT110 cDNA, in ref. 2). This antibody stains from 0.8% to 3.3% (mean 1.9%) of peripheral CD3-positive lymphocytes in normal blood (data on file at Immunotech).

### REAGENT

Clone	WJF24
Isotype	IgM
Species	Rat
Immunogen	RBL rat cell line transfected with human TCR-Vβ4 gene
Hybridoma	X63Ag8653 x Lou rat spleen cells
Source	Ascites fluid
Purification	Ion exchange or affinity chromatography
Conjugation	R-phycoerythrin (PE) is conjugated at 0.5 - 1.5 moles of PE per mole of Ig. Excitation wavelength: 488 nm Maximum emission wavelength: 575 nm Main emission color: Orange-red
Buffer	2 mg/mL bovine serum albumin in phosphate-buffered saline containing 0.1% sodium azide.

### APPLICATION

T-cell repertoire studies by flow cytometry.

### 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. 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.
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.

### STORAGE CONDITIONS AND STABILITY

Each reagent is stable up to the expiration date when stored at 2 - 8°C. Do not freeze. Minimize exposure to light.

### REAGENT PREPARATION

No reconstitution is necessary. This monoclonal antibody may be used directly from the vial. Bring reagent to 18 - 25°C prior to use.

### PROCEDURE

This reagent is designed for flow cytometry.

Assay volume: 20 µL per 5 x 10<sup>5</sup> cells in one test, or per 100 µL whole blood or bone marrow.

A wash is required to yield optimal results.

Warning: As this antibody recognizes a small population, it is often preferable to use double staining experiments with another conjugated T-cell marker (CD2, CD3, CD4, CD8, etc.).

### EXAMPLE DATA

The graphs below are biparametric representations (Fluorescence Intensity versus Fluorescence Intensity) of a lyzed normal whole blood sample. The staining is performed with a combination of 2 reagents, CD3-FITC (PN IM1281) and TCR Vβ4-PE (PN IM3602). The gating is done on CD3<sup>+</sup> lymphocytes.

\*Upper-right quadrant (2): CD3<sup>pos</sup> - TCR Vβ4<sup>pos</sup> T lymphocytes.

\*Lower-right quadrant (4): CD3<sup>pos</sup> - TCR Vβ4<sup>neg</sup> T lymphocytes.

Figure 1: Acquisition with a COULTER® EPICS® XL™ flow cytometer. Analysis with the XL SYSTEM II™ software.

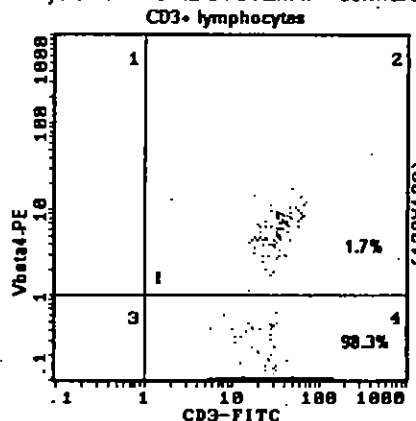
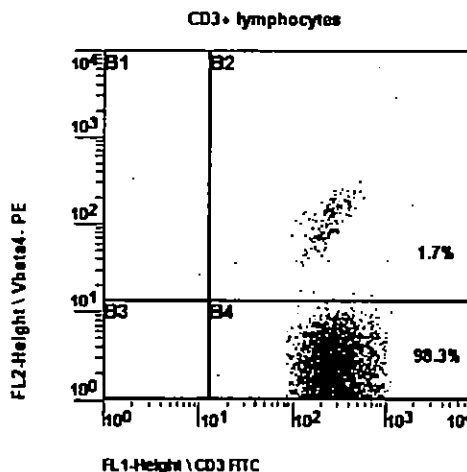


Figure 2: Acquisition with a Becton Dickinson FACScan™ flow cytometer equipped with the LYSYS II™ software. Analysis with EXPO™ Cytometer software (Coulter PN 6605434).



### SELECTED RESEARCH REFERENCES

1. [70] Wei, S., Chamley, P., Robinson, M.A., Concannon, P., "The extent of the human germline T-cell receptor Vβ gene segment repertoire", 1994, Immunogenetics, 40, 27-36.
2. [72] Kimura, N., Toyonaga, B., Yoshikai, Y., Du, R.P., Mak, T.W., "Sequences and repertoire of the human T cell receptor α and β chain variable region genes in thymocytes", 1987, Eur. J. Immunol., 17, 375-383.

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# COULTER

PARTNERS IN CELL ANALYSIS



# IMMUNOTECH

A COULTER COMPANY

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20 $\mu$ L / test**

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Manufactured by



**IMMUNOTECH**  
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