

IOTest[®] Anti-TCR Vβ9 -PE

PN IM2003 – 50 tests – 20 µL / test – Clone FIN9

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

SPECIFICITY

Human variable β9 chain of the T cell receptor, called TCRBV9S1 according to the nomenclature from Wei et al (1) is also referred to as TRBV3-1 (based on the IMGT gene nomenclature) (2, 3).

The Vβ9 subfamily has been shown to contain only one functional gene (4). This corresponds to the IGRb20 sequence which is identical to the PL2.6 sequence (5).

Clones recognized by FIN9 have been shown to contain different Jβ sequences associated with Vβ9. PBL sorted with FIN9 give a homogenous cell line 100 % positive with the antibody and negative with 18 other Vβ specific antibodies tested (which make up ~70 % of the αβ repertoire).

The FIN9 monoclonal antibody (mAb) stains between 1.6 and 3.2 % of peripheral CD3 positive lymphocytes in normal blood.

REAGENT

IOTest Anti-TCR Vβ9-PE Conjugated Antibody
PN IM2003 – 1 mL Liquid – 50 tests – 20 µL / test.

Clone	FIN9
Isotype	IgG2a, mouse
Immunogen	Murine T cell hybridoma transfected with human Vβ9 gene segment
Hybridoma	X63 AG8.653 x F1(BIOBR x KB5C20) spleen cells
Source	Ascites fluid
Purification	ion exchange chromatography
Conjugation	R-phycoerythrin (PE) is conjugated at 0.5 – 2 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

Studies of TCR Vβ9 positive cells 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.
7. Use good laboratory practices when handling this reagent.

STORAGE CONDITIONS AND STABILITY

This reagent is stable up to the expiration date when stored at 2 – 8°C in the dark. Do not freeze.

EVIDENCE OF DETERIORATION

Any change in the physical appearance of this PE-labeled reagent (clear colorless to pinkish liquid) or any major variation in values obtained for control samples may indicate deterioration and the reagent should not be used.

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. A wash is required to yield optimal results
Assay volume: 20 µL per 5 x 10⁵ cells in one test, or per 100 µL whole blood.
It is preferable to double stain the sample with another T-cell marker (CD3, CD4, CD8).

SELECTED RESEARCH REFERENCES

1. Wei, S., Charmley, P., Robinson, M.A., Concannon, P., "The extent of the human

germline T-cell receptor V beta gene segment repertoire", 1994, Immunogenetics, 40, 27-36.

2. Lefranc, M.P., Giudicelli, V., Ginestoux, C., Bodmer, J., Muller, W., Bontrou, R., Lemaitre, M., Malik, A., Barbie, V., Chaume D., "IMGT, the international ImMunoGeneTics database", 1999, Nucleic Acids Res., 27, 209-212.
3. Lefranc, M.P., "IMGT, the international ImMunoGeneTics database", 2003, Nucleic Acids Res., 31, 307-310.
4. Ferradini, L., Roman-Roman, S., Azocar, J., Michalaki, H., Triebel, F., Hercend, T., "Studies on the human TCR alpha beta variable region genesII. Identification of four additional V beta subfamilies", 1991, Eur. J. Immunol., 21, 935-942
5. Concannon, P., Pickering, L., Kung, P., Hood, L., "Diversity and structure of human T-cell receptor beta-chain variable region genes", 1986, Proc. Natl. Acad. Sci. USA, 83, 6598-6602.

PRODUCT AVAILABILITY

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PE is licensed under patent 4,520,110

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