

PN IM3603**TCR Vβ13.2-PE (H132)****50 tests****20 μL / test**
IOTest[®]
 Conjugated Antibodies

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

SPECIFICITY

Human variable B13.2 chain of the T-cell receptor (Vβ13.2) is also called TCRBV13S2, according to the nomenclature from Wei et al. (1).

The monoclonal antibody H132 recognizes the Vβ13.2 allele product (clone 5-2 cDNA, in ref. 2), but does not react with the Vβ13.1, 13.3, 13.5 and 13.6 allele products of the Vβ13 subfamily (3). The specificity of this antibody has been confirmed at the First Human TCR Workshop in San Francisco, CA, in 1995 (4, 5). None of the other Vβ specific antibodies from this workshop gave significant staining on the sorted cell lines (6, 7).

This antibody stains from 0.8% to 5.3% (mean 2.8%) of peripheral CD3-positive lymphocytes in normal blood (data on file at Immunotech).

REAGENT

Clone	H132
Isotype	IgG1
Species	Mouse
Immunogen	Mouse T-cell hybridoma DS23-27.4 transfected with human TCR-Vβ13.2 gene
Hybridoma Source	Sp2/0 x SWR spleen cells
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 10⁵ cells in one test, or per 100 μL whole blood or bone marrow.

A wash is required to yield optimal results.

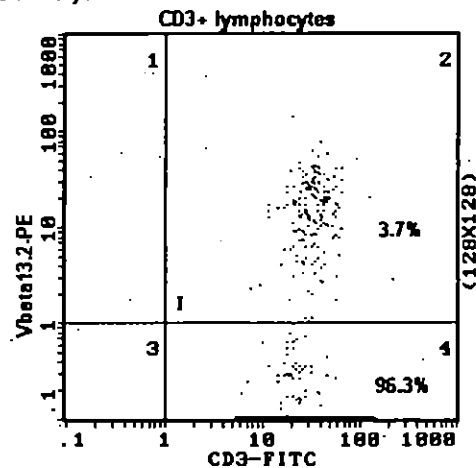
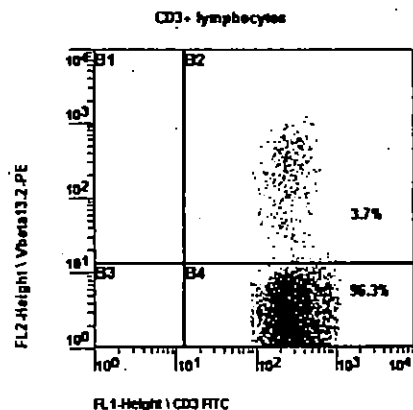
Warning: As this antibody recognizes a small population, it is often preferable to use double staining experiments with another conjugated T-cell marker (CD2, CD3, CD4, CD8, etc.).

EXAMPLE DATA

 The graphs below are biparametric representations (Fluorescence Intensity versus Fluorescence Intensity) of a tyzed normal whole blood sample. The staining is performed with a combination of 2 reagents, CD3-FITC (PN IM1281) and TCR Vβ13.2-PE (PN IM3603). The gating is done on CD3⁺ lymphocytes.

 *Upper-right quadrant (2): CD3⁺ - TCR Vβ13.2⁺ T lymphocytes.

 *Lower-right quadrant (4): CD3⁺ - TCR Vβ13.2⁻ 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).


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PARTNERS IN CELL ANALYSIS


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PN IM3603 TCR V β 13.2-PE (H132)

50 tests

20 μ L / test

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SELECTED RESEARCH REFERENCES

- [70] Wei, S., Charmley, P., Robinson, M.A., Concannon, P., "The extent of the human germline T-cell receptor V β gene segment repertoire", 1994, Immunogenetics, 40, 27-36.
- [360] Li, Y., Szabo, P., Posnett, D.N., "The genomic structure of human V β 6 TCR genes", 1991, J. Exp. Med., 174, 1537-1547.
- [1764] Choi, Y., Kotzin, B., Lafferty, J., White, J., Pigeon, M., Kubo, R., Kappler, J., Marrack, P., "A method for production of antibodies to human T-cell receptor beta-chain variable regions", 1991, Proc. Natl. Acad. Sci. USA, 88, 8357-8361.
- [46] Posnett, D.N., Romagné, F., Necker, A., Kotzin, B.L., Sekaly, R-P., "First human TcR monoclonal antibody workshop", 1996, The Immunologist, 4/1, 5-8.
- [5614] Liao, L., Gordon, L., Ciurli, C., Sekaly, R.P., Posnett, D.N., "Superantigens and a TcR mAb distinguish between TcR V β alleles", 1996, The Immunologist, 4/1, 28-29.
- [5612] Peyrat, M.A., Gaschet, J., Vivien, R., Vié, H., Bonneville, M., "Clustering of the TcR workshops mAbs by FACS analysis of polyclonal T-cell lines", 1996, The immunologist, 4/1, 9-11.
- [5613] Korman, A., Kelly, R., Brown, E., Pelanne, M., Crowmover, A., McIlhane, M., Bill, J., Lederer, D., Tomkinson, B., Karlok, M., "mAb analysis of Murine Hybridomas expressing human V β regions and of rhesus T.cells", 1996, The Immunologist, 4/1, 16-20.

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