IOTest® Anti-TCR Vβ14-PE

PN IM2047 – 50 tests – 20 µL / test – Clone CAS1.1.3

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

SPECIFICITY

Human variable β14 chain of the T-cell receptor, called TCRBV14S1 according to the nomenclature from Wei et al. (1) also referred to as TRBV27 (based on the IMGT gene nomenclature) (2, 3).
Vβ14 is a single membered subfamily (PL8.1 and PH21 are identical) (4, 5).
The CAS1.1.3 monoclonal antibody stains from 2.2 to 5.6% of peripheral CD3 positive lymphocytes in normal blood.
The specificity of this antibody has been confirmed at the first Human TcR monoclonal Antibody Workshop in San Francisco in 1995 (6).

REAGENT

IOTest Anti-TCR Vβ14-PE Conjugated Antibody
PN IM2047 – 1 mL Liquid – 50 tests – 20 µL / test.

Clone	CAS1.1.3
Isotype	IgG1, mouse
Immunogen	Mouse T-cell hybridoma transfected with human Vβ14 gene segment.
Hybridoma	NS1 x Balb/c 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 Vβ14 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 10^5 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., Bontrop, 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. Concannon, P., Pickering, L.A., 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.
5. Tillinghast, J.P., Behlke, M.A., Loh, D.Y., "Structure and diversity of the human T cell receptor beta chain variable region genes", 1986, Science, 233, 879-883.
6. Posnett, D.N., Romagné, F., Necker, A., Kotzin, B.L., Sekaly, R.-P., "First Human TcR Monoclonal Antibody Workshop", 1996, The Immunologist, 4, 5-8.

PRODUCT AVAILABILITY

IOTest Anti-TCR Vβ14-PE Conjugated Antibody
PN IM2047 – 1 mL Liquid – 50 tests – 20 µL / test.

PE is licensed under patent 4,520,110

For additional information in the USA, call 800-526-7694.
Outside the USA, contact your local Beckman Coulter representative.

www.beckmancoulter.com

TRADEMARKS

Manufactured by:
Immunotech SAS, a Beckman Coulter Company
130, avenue de Lattre de Tassigny, B.P. 177
13276 Marseille Cedex 9, France