

# IOTest<sup>®</sup> Anti-TCR V $\alpha$ 24-FITC

PN IM1589 – 50 tests – 20  $\mu$ L / test – Clone C15

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

## SPECIFICITY

Human variable  $\alpha$ 24 chain of the T cell receptor is also called TCRAV24S1 according to the nomenclature from Arden et al (1).

V $\alpha$ 24 is the only described member of the subfamily of the T cell receptor (2). The monoclonal antibody C15 recognizes the IGR $\alpha$ 02 sequence (3, 4). It stains 0.4 to 1% of peripheral CD3 positive lymphocytes from normal donors. V $\alpha$ 24 has been shown to be expanded in a clonal fashion in the CD3+ CD8- CD4- cell population in PBL of several donors (3, 4).

The IGR $\alpha$ 02 sequence is also referred to as TRAV10 (based on the IMGT gene nomenclature) (5, 6).

The specificity of this antibody has been confirmed at the first Human TcR Monoclonal Antibody Workshop in San Francisco in 1995 (7).

## REAGENT

IOTest Anti-TCR V $\alpha$ 24-FITC Conjugated Antibody  
PN IM1589 – 1 mL Liquid – 50 tests – 20  $\mu$ L / test.

<b>Clone</b>	C15
<b>Isotype</b>	IgG1, mouse
<b>Immunogen</b>	Human T-cell clone
<b>Hybridoma Source</b>	PAI x Balb/c spleen cells
<b>Purification</b>	ion exchange chromatography
<b>Conjugation</b>	FITC (Fluorescein isothiocyanate) is conjugated at 3 – 10 moles of FITC per mole of Ig.
<b>Fluorescence</b>	FITC (Green) Excites at 468 – 509 nm Emits at 504 – 541 nm
<b>Buffer</b>	2 mg/mL bovine serum albumin in phosphate-buffered saline containing 0.1% sodium azide.

## APPLICATION

Studies of TCR V $\alpha$ 24 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 FITC-labeled reagent (clear, colorless to yellowish-green 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  $\mu$ L per  $5 \times 10^5$  cells in one test, or per 100  $\mu$ L whole blood. It is preferable to double stain the sample with another T-cell marker (CD3, CD4, CD8).

## SELECTED RESEARCH REFERENCES

1. Arden, B., Clark, S.P., Mak, T.W., "Human T cell receptor variable gene segment families", 1995, Immunogenetics, 42, 455-500.
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"Studies on the human TCR  $\alpha/\beta$  variable region genes II. Identification of four additional V beta subfamilies", 1991, Eur.J. Immunol., 21, 935-942.

3. Padovan, E., Casorati, G., Dellabona, P., Meyer, S., Brockhaus, M., Lanzavecchia, A., "Expression of two T-cell receptor  $\alpha$  chains: Dual receptor T cells", 1993, Science, 262, 422-424.
4. Dellabona, P., Padovan, E., Casorati, G., Brockhaus, M., Lanzavecchia, A., "An invariant V $\alpha$ 24-J $\alpha$ Q/V $\beta$ 11 T-cell receptor is expressed in all individuals by clonally expanded CD4<sup>+</sup> T cells", 1994, J. Exp. Med., 180, 1171-1176.
5. Lefranc, M.P., Giudicelli, V., Ginestoux, C., Bodmer, J., Muller, W., Bontrou, R., Lemaire, M., Malik, A., Barbie, V., Chaume D., "IMGT, the international ImMunoGeneTics database", 1999, Nucleic Acids Res., 27, 209-212.
6. Lefranc, M.P., "IMGT, the international ImMunoGeneTics database", 2003, Nucleic Acids Res., 31, 307-310.
7. 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 V $\alpha$ 24-FITC Conjugated Antibody  
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For additional information in the USA, call 800-526-7694.  
Outside the USA, contact your local Beckman Coulter representative.

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