

Monoclonal Antibody TCR V α 24-Biotin

PN IM2027 – Freeze-dried – 0.1 mg – Clone C15

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

SPECIFICITY

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

V α 24 is the only described member of the subfamily of the T cell receptor (2). The monoclonal antibody C15 recognizes the IGRa02 sequence (3, 4). It stains 0.4 to 1% of peripheral CD3 positive lymphocytes from normal donors. V α 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 IGRa02 sequence is also referred to as TRAV10 (based on the IMGT gene nomenclature) (5).

The specificity of this antibody has been confirmed at the first Human TcR Monoclonal Antibody Workshop in San Francisco in 1995 (6).

REAGENT

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Clone	C15
Isotype	IgG1
Immunogen	Human T-cell clone
Hybridoma	PAI x Balb/c spleen cells
Species	Mouse
Source	Ascites fluid
Purification	Ion exchange or affinity chromatography

REAGENT CONTENTS

1 mg/mL bovine serum albumin in phosphate-buffered saline.

APPLICATIONS

Studies of TCR V α 24 positive cells by flow cytometry.

STATEMENT OF WARNINGS

1. 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.

2. Never pipet with mouth and avoid contact of samples with skin and mucous membranes.
3. Do not use reagent beyond the expiration date on the vial label.
4. Avoid microbial contamination of reagent or erroneous results may occur.
5. Use good laboratory practices when handling this reagent.

STORAGE CONDITIONS AND STABILITY

This reagent is stable up to the expiration date on the vial label when stored at 2–8°C. The reconstituted form may be stored at –20°C until the expiration date. Aliquotting is suggested to avoid multiple freeze-thaw cycles. The addition of sodium azide at 0.1% (w/v) is recommended for storage of the reconstituted form for up to one month at 2–8°C. Minimize exposure to warmth.

REAGENT PREPARATION

Reconstitute with 0.5 mL of distilled water. No preservative has been added.

CONJUGATION

The purified Ig is conjugated to biotin. Revelation procedure requires streptavidin conjugated with a probe as an additional step after binding of the primary antibody.

PROCEDURE

For each application, it is recommended to establish the right range of antibody dilutions to be used for the experiment.

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.

2. Ferradini, L., Roman-Roman, S., Azocar, J., Michalaki, H., Triebel, F., Hercend, T., "Studies on the human TCR α/β 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 α chains: Dual receptor Tcells", 1993, Science, 262, 422-424.
4. Dellabona, P., Padovan, E., Casorati, G., Brockhaus, M., Lanzavecchia, A., "An invariant V α 24-J α Q/V β 11 T-cell receptor is expressed in all individuals by clonally expanded CD4⁺ T cells", 1994, J. Exp. Med., 180, 1171-1176.
5. Lefranc, M.P., Giudicelli, V., Ginestoux, C., Bodmer, J., Muller, W., Bontrop, R., Lemaire, M., Malik, A., Barbie, V., Chaume D., "IMGT, the international ImMunoGeneTics database", 1999, Nucleic Acids Res., 27, 209-212.
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

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