Monoclonal Antibody Anti-TCR Vβ11

PN IM1582 – Purified – Freeze-dried – 0.1 mg – Clone C21

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

SPECIFICITY

Human variable β11 chain of the T-cell receptor (TCR), also called TCRBV11S1 according to the nomenclature from Wei et al (1) and also referred to as TRBV25-1 (based on the IMGT gene nomenclature) (2).
Two Vβ11 sequences are described, PL3.12 (3) and PH15 (4). These sequences differ only in their leader sequence and therefore lead to the same mature protein.
The C21 recognizes the gene product of these sequences and stains 0.4% to 0.9% of peripheral $CD3^+$ cells in normal blood.
An invariant Vα24/Vβ11 T cell receptor is expressed in all individuals by clonally expanded $CD4^-$ $CD8^-$ T cells, reactive to bacterial antigens. This unique lymphocyte population restricted by the CD1d molecule recognition has been identified as the natural killer T (NKT) cells.
The specificity of this antibody has been confirmed at the First Human TcR Monoclonal Antibody Workshop in San Francisco in 1995 (5).

REAGENT

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Clone	C21
Isotype	IgG2a, mouse
Immunogen	Human T-cell hybridoma
Hybridoma	P3-X63-Ag.8.653 x SJL spleen cells
Source	Ascites fluid
Purification	Ion exchange or affinity chromatography
Buffer	1 mg/mL bovine serum albumin in phosphate-buffered saline

APPLICATION

Studies of T-cell repertoire 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 by mouth and avoid contact of samples with skin and mucous membranes.
3. Do not use antibody beyond the expiration date on the label.
4. Avoid microbial contamination of reagents or incorrect results might occur.
5. Use good laboratory practices when handling this reagent.

STORAGE CONDITIONS AND STABILITY

This freeze-dried form may be stored at 2 – 8°C until the expiration date stated on the vial label.
No preservative has been added.

REAGENT PREPARATION

Depending of usage, reconstitute with 0.5 mL of distilled water, with or without 0.1% sodium azide (w/v).
The reconstituted form including 0.1% sodium azide may be stored for up to one month at 2 – 8°C.
The reconstituted form without sodium azide can be stored at –20°C or less, until the expiration date stated on the vial label.
In this case, aliquotting is recommended to avoid multiple freezing / thawing cycles.

PROCEDURE

For each application, it is recommended to establish the right range of antibody dilutions to be used for the experiment.
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. 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.
4. 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, 22, 879-883.
5. 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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For additional information in the USA, call 800-526-7694.
Outside the USA, contact your local Beckman Coulter representative.
www.beckmancoulter.com

TRADEMARKS

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