

# Monoclonal Antibody Anti-Human TCR V $\beta$ 8

PN IM1148 – Purified – Freeze-dried – 0.1 mg – Clone 56C5.2

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

## SPECIFICITY

Human variable  $\beta$ 8 chain of the T-cell receptor.

The 56C5.2 monoclonal antibody (mAb) recognizes V $\beta$ 8.1 and V $\beta$ 8.2 (YT35 and PL3.3 sequences (1), called TCRBV8S1 and S2 according to the nomenclature from Wei et al. (2), also referred to as TRBV12-3, TRBV12-4 (based on the IMGT gene nomenclature) (3, 4).

Other V $\beta$ 8 sequences are believed to be pseudogenes.

The 56C5.2 mAb stains 2.6 to 5.1% of peripheral CD3<sup>+</sup> cells in normal blood. V $\beta$ 8 is the target of Staphylococcal Enterotoxin E (SEE) (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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<b>Clone</b>	56C5.2
<b>Isotype</b>	IgG2a, mouse
<b>Immunogen</b>	MX3 positive cell line
<b>Hybridoma</b>	NS1 x Balb/c spleen cells
<b>Source</b>	Ascites fluid
<b>Purification</b>	Ion exchange or affinity chromatography
<b>Buffer</b>	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. 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.

2. 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.
3. 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.
4. Lefranc, M.P., "IMGT, the international ImMunoGeneTics database", 2003, Nucleic Acids Res., 31, 307-310.
5. Marrack, P., Kappler, J., "The staphylococcal enterotoxins and their relatives", 1990, Science, 248, 705-711.
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

Monoclonal Antibody Anti-Human TCR V $\beta$ 8  
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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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