Mouse Anti-Human T-cell Receptor V beta-17 Monoclonal Antibody

Mouse, Monoclonal (TRB@)

Cat. No. DMAB4361MH
Lot. No. (See product label)

PRODUCT INFORMATION

Product Overview: Monoclonal Antibody to T-cell Receptor V beta-17 Fluorescein conjugated
Specificity: Human variable beta-17 chain of the T-cell receptor also called TCRBV17S1 according to the nomenclature of Wei et al. (1). V beta-17 is a single membered family (HBVT02 (2)). This antibody has been further characterized by cell sorting on PBL using this antibody followed by analysis of sorted cells by molecular biology (3,4). Analysis of alpha chain mRNA by PCR with a panel of a specific oligonucleotides shows transcripts for most V alpha sequences. Analysis of beta chain mRNA by anchored PCR and sequencing, only shows transcripts for beta-17 gene segment (HBVT02 sequence). This antibody is described in (4). The specificity of this antibody has been confirmed at the First Human TCR Monoclonal Antibody Workshop in San Francisco in 1995.(5)
Isotype: IgG1
Clone: F18.6F4
Host animal: Mouse. Hybridization of X63 Ag 8.653 myeloma cells with spleen cells from Balb/c mice
Immunogen: Mouse T-cell hybridoma transfected with V beta-17 gene segment
Format: FITC, Liquid
Applications: Studies have shown that V beta-17 may be useful in T-cell repertoire research.
Superantigenic stimulation of T cells; V beta-17 seems to be the target of MAM (6)
Flow cytometry: 20ul/5x105 cells/test Each laboratory should determine an optimum working titer for use in its particular application. Other applications have not been tested but use in such assays should not necessarily be excluded
Purification: Not applicable
Affinity Constant: Not determined

REFERENCES

1. Kieke, Michele C.; Shusta, Eric V.; Teyton, Luc; Wittrup, K. Dane; Kranz, David M. (1999). "Selection of functional T cell receptor mutants from a yeast surface-display library". Proceedings of the National Academy of Science of the United States of America 96 (10): 5651–5656.
2. Abram, Clare L.; Lowell, Clifford A. (2007-03-13). "The Expanding Role for ITAM-Based Signaling Pathways in Immune Cells". Science Signalling 2007 (377): re2.

ANTIGEN GENE INFORMATION

Gene Name: TRB@ T cell receptor beta locus [Homo sapiens]
Official Symbol:TRB@
Synonyms: TRB@; T cell receptor beta locus; TRB; TCRB; T-cell receptor, beta cluster; T-cell antigen receptor, beta polypeptide, T-cell receptor, beta cluster; T-Cell Receptor V beta-17
GeneID: 6957
MIM: 186930
Chromosome Location: 7q34
Pathway: Cytokines and Inflammatory Response; T Cell Receptor Signaling Pathway

PACKAGING

Concentration: Not applicable
Buffer: PBS containing 2mg/ml BSA
Preservative: 0.1% Sodium Azide
Storage: Store (in the dark) at 2-8°C. DO NOT FREEZE.
Warning: This product contains sodium azide, which has been classified as Xn (Harmful), in European Directive 67/548/EEC in the concentration range of 0.1 – 1.0 %. When disposing of this reagent through lead orcopper plumbing, flush with copious volumes of water to prevent azide build-up in drains.

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