

## Monoclonal Antibody to T Cell Receptor (TCR) V beta 17 - Purified

<b>Alternate names:</b>	TCR V beta-17, TCR Vb17
<b>Catalog No.:</b>	AM05099PU-N
<b>Quantity:</b>	0.1 mg
<b>Concentration:</b>	0.2 mg/ml (prior to lyophilization)
<b>Host / Isotype:</b>	Mouse / IgG1
<b>Recommended Isotype Controls:</b>	AM03095PU-N, SM10P (for use in human samples)
<b>Clone:</b>	E17.5F3
<b>Immunogen:</b>	Mouse T-cell hybridoma transfected with V beta-17 gene segment. <b>Remarks:</b> Hybridization of X63 Ag 8.653. Mmyeloma cells with spleen cells from BALB/c mice.
<b>Format:</b>	<b>State:</b> Lyophilized purified IgG fraction <b>Buffer System:</b> PBS containing 1 mg/ml BSA without preservatives <b>Reconstitution:</b> Restore with 0.5 ml distilled water.
<b>Applications:</b>	Flow Cytometry: 2 µg/5x10e5 cells/test. Studies have shown that V beta-17 may be useful in T-cell repertoire studies in normal and pathological situations including autoimmune disease, particularly rheumatoid arthritis (6) and AIDS (7). Superantigenic stimulation of T cells; V beta-17 seems to be the target of MAM (6) (Mycoplasma Arthritis derived superantigen). Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
<b>Specificity:</b>	This antibody recognizes 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 Reference 4. <b>Species:</b> Human. Other species not tested.

**Storage:**

Prior to reconstitution store at 2-8°C.

Following reconstitution store the antibody at -20°C.

The addition of 0.1% (w/v) sodium azide recommended for storage up to one month at 2 - 8°C.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

**General Readings:**

1. Wei S, Charmley P, Robinson MA, Concannon P. The extent of the human germline T-cell receptor V beta gene segment repertoire. *Immunogenetics*. 1994;40(1):27-36. PubMed PMID: 8206523.
2. Kimura N, Toyonaga B, Yoshikai Y, Du RP, Mak TW. Sequences and repertoire of the human T cell receptor alpha and beta chain variable region genes in thymocytes. *Eur J Immunol*. 1987 Mar;17(3):375-83. PubMed PMID: 3494611.
3. Diu A, Romagné F, Genevée C, Rocher C, Bruneau JM, David A, et al. Fine specificity of monoclonal antibodies directed at human T cell receptor variable regions: comparison with oligonucleotide-driven amplification for evaluation of V beta expression. *Eur J Immunol*. 1993 Jul;23(7):1422-9. PubMed PMID: 8391986.
4. Romagné F, Besnardeau L, Malissen B. A versatile method to produce antibodies to human T cell receptor V beta segments: frequency determination of human V beta 2+ T cells that react with toxic-shock syndrome toxin-1. *Eur J Immunol*. 1992 Oct;22(10):2749-52. PubMed PMID: 1396978.
5. Posnett, D.N., et al., (1996), First human TcR monoclonal antibody workshop, *The immunologist*, 4, 1, 5 - 8.
6. Friedman SM, Crow MK, Tumang JR, Tumang M, Xu YQ, Hodtsev AS, et al. Characterization of human T cells reactive with the *Mycoplasma arthritidis*-derived superantigen (MAM): generation of a monoclonal antibody against V beta 17, the T cell receptor gene product expressed by a large fraction of MAM-reactive human T cells. *J Exp Med*. 1991 Oct 1;174(4):891-900. PubMed PMID: 1833503.
7. Imberti L, Sottini A, Bettinardi A, Puoti M, Primi D. Selective depletion in HIV infection of T cells that bear specific T cell receptor V beta sequences. *Science*. 1991 Nov 8;254(5033):860-2. PubMed PMID: 1948066.