

Monoclonal Antibody to T Cell Receptor (TCR) V beta 8.1, 8.2 - Aff - Purified

Alternate names:	TCR V beta-8.1, TCR V beta-8.2, TCR Vb8.1, TCR Vb8.2
Catalog No.:	AM33394PU-N
Quantity:	0.1 mg
Concentration:	0.5 mg/ml
Background:	The TCR V β 8 family consists of three members, namely V β 8.1, 8.2 and 8.3. KJ16-133.18 reacts with V β 8.1, 8.2 only, but not V β 8.3. Most mouse strains have about 20% V β 8+ T cells in the periphery. However, C57BR, C57L, SJL, SWR (Tcr α haplotype) and RIII strains (Tcr β haplotype) do not express V β 8 due to a gene deletion at the V β 8 family loci. Other strains expressing endogenous super-antigen, such as MIs-1a have significant reduced number of V β 8.1 cells in the periphery. Exogenous superantigen, such as staphylococcal enterotoxin B, stimulates lymphocytes bearing V β 8 and selectively eliminate those T cells in vivo.
Host / Isotype:	Rat / IgG2a
Clone:	KJ16-133.18
Immunogen:	TCR receptor from T cell hybridoma DO-11.10
Format:	State: Liquid purified IgG fraction Purification: Affinity Chromatography Buffer System: PBS, pH 7.2 Preservatives: 0.09% Sodium Azide
Applications:	Flow Cytometry: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For staining, the suggested use of this reagent is \leq 0.25 μ g per million cells in 100 μ l volume. Immunoprecipitation: Reported in Litterature. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This antibody recognizes the V beta 8.1 and V beta 8.2 determinants of the T cell receptor. Species: Mouse. Other species not tested.
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
Product Citations:	Originator or purchased from resellers: 1. Rieder SA, Nagarkatti P, Nagarkatti M. CD1d-independent activation of invariant natural killer T cells by staphylococcal enterotoxin B through major histocompatibility complex

class II/T cell receptor interaction results in acute lung injury. *Infect Immun.* 2011 Aug;79(8):3141-8. doi: 10.1128/IAI.00177-11. Epub 2011 May 31. PubMed PMID: 21628519.

General Readings:

1. Sim GK, Augustin AA. V beta gene polymorphism and a major polyclonal T cell receptor idotype. *Cell.* 1985 Aug;42(1):89-92. PubMed PMID: 2410144.
2. Ignatowicz L, Kappler JW, Marrack P, Scherer MT. Identification of two V beta 7-specific viral superantigens. *J Immunol.* 1994 Jan 1;152(1):65-71. PubMed PMID: 8254207.
3. Haskins K, Hannum C, White J, Roehm N, Kubo R, Kappler J, et al. The antigen-specific, major histocompatibility complex-restricted receptor on T cells. VI. An antibody to a receptor allotype. *J Exp Med.* 1984 Aug 1;160(2):452-71. PubMed PMID: 6206178.
4. Behlke MA, Chou HS, Huppi K, Loh DY. Murine T-cell receptor mutants with deletions of beta-chain variable region genes. *Proc Natl Acad Sci U S A.* 1986 Feb;83(3):767-71. PubMed PMID: 3456168.
5. Fairchild S, Rosenwasser OA, Dyson PJ, Tomonari K. Tcrb-V3+ T-cell deletion and a new mouse mammary tumor provirus, Mtv-44. *Immunogenetics.* 1992;36(3):189-94. PubMed PMID: 1319398.
6. White J, Herman A, Pullen AM, Kubo R, Kappler JW, Marrack P. The V beta-specific superantigen staphylococcal enterotoxin B: stimulation of mature T cells and clonal deletion in neonatal mice. *Cell.* 1989 Jan 13;56(1):27-35. PubMed PMID: 2521300.

Pictures:

C57BL/6 splenocytes stained with 145-2C11 (CD3) APC and purified KJ16-133, followed by anti-Rat IgG FITC.

