

Monoclonal Antibody to T Cell Receptor (TCR) V beta 11 - Purified

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| Alternate names: | TCR V beta-11, TCR Vb11 |
| Catalog No.: | AM05097PU-N |
| Quantity: | 0.1 mg |
| Background: | T cell receptors (TCR) recognize foreign antigens which have been processed as small peptides and bound to major histocompatibility complex (MHC) molecules at the surface of antigen presenting cells (APC). Each T cell receptor is a dimer consisting of one alpha and one beta chain or one delta and one gamma chain. This region represents the germline organization of the T cell receptor beta locus. The beta locus includes V (variable), J (joining), diversity (D), and C (constant) segments. During T cell development, the beta chain is synthesized by a recombination event at the DNA level joining a D segment with a J segment; a V segment is then joined to the D-J gene. The C segment is later joined by splicing at the RNA level. |
| Host / Isotype: | Mouse / IgG2a |
| Recommended Isotype Controls: | AM03096PU-N |
| Clone: | C21 |
| Immunogen: | Human T-Cell clone |
| Format: | State: Lyophilized purified Ig Purification: Ion exchange Buffer System: PBS containing 1mg/ml BSA Reconstitution: Restore with 0.5ml of distilled water |
| Applications: | T-cell repertoire studies. Flow cytometry: 2µg/5x10 ⁵ cells/tests. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user. |
| Specificity: | This antibody reacts to the variable beta-11 chain of the T cell receptor also called TCRBV11S1 according to the nomenclature from Wei et al. Two V beta-11 sequences have been described, PL3.12 and PH15. These sequences differ only in their leader sequence and therefore lead to the same mature protein. C21 recognizes the gene product of these sequences. It has been characterized on human T cell clones and by extensive cell sorting followed by molecular biology analysis. V beta-11 has been shown to be expanded in a clonal fashion in the CD3+ CD8- CD4- cell population in PBL of several donors. Species: 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 is recommended for storage of the reconstituted form for up to 1 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. Concannon P, Pickering LA, Kung P, Hood L. Diversity and structure of human T-cell receptor beta-chain variable region genes. Proc Natl Acad Sci U S A. 1986 Sep;83(17):6598-602. PubMed PMID: 3489234.
3. Tillinghast, J.P., (1986), Structure and diversity of the human T-cell receptor beta chain variable region genes, Science, 22, 879 - 883.
4. Dellabona P, Padovan E, Casorati G, Brockhaus M, Lanzavecchia A. An invariant V alpha 24-J alpha Q/V beta 11 T cell receptor is expressed in all individuals by clonally expanded CD4-8- T cells. J Exp Med. 1994 Sep 1;180(3):1171-6. PubMed PMID: 8064234.
5. Dellabona P, Casorati G, Friedli B, Angman L, Sallusto F, Tunnacliffe A, et al. In vivo persistence of expanded clones specific for bacterial antigens within the human T cell receptor alpha/beta CD4-8- subset. J Exp Med. 1993 Jun 1;177(6):1763-71. PubMed PMID: 7684433.