Mouse anti-Human TCR Cbeta1 Monoclonal Antibody | anti-TCRCbeta1 antibody

Anti-Hu TCR Cbeta1 FITC

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA129146	**Mouse**	**Human**	**Flow Cytometry, Functional Assay**

PRODUCT SYNONYMS

TCR Cbeta1; Monoclonal Antibody; Anti-Hu TCR Cbeta1 FITC; TCRCB1; TRBC1; T cell receptor beta constant 1; anti-TCRCbeta1 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	Mouse IgG2a kappa
Clone Number	JOVI.1
Specificity	The mouse monoclonal antibody JOVI.1 recognizes an extracellular epitope on TCR Cbeta1 (TRBC1).
Purity/Purification	The purified antibody is conjugated with fluorescein isothiocyanate (FITC) under optimum conditions. The conjugate is purified by size-exclusion chromatography.
Form/Format	Stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide
Applicable Applications for anti-TCRCbeta1 antibody	FCM/FACS (Flow Cytometry)
Conjugation	FITC
Immunogen	thymus, spleen, and mesenteric lymph nodes isolated from a mouse transgenic for human TCR Vbeta3Cbeta1
Preparation and Storage	Store in the dark at 2-8 degree C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.

ADDITIONAL INFORMATION

Related Product Information for anti-TCRCbeta1 antibody	Alpha-beta T cell receptors (TCRs) are antigen specific receptors, which are essential to the immune response and are present on the cell surface of T lymphocytes. They recognize peptide-loaded major histocompatibility complexes (pMHCs), that are displayed by antigen presenting cells (APCs). Binding of alpha-beta TCR to pMHC initiates TCR-CD3 clustering on the cell surface and intracellular activation of LCK, that phosphorylates the ITAM motifs of CD3gamma, CD3delta, CD3epsilon and CD3zeta, enabling the recruitment of ZAP70. In turn, ZAP70 phosphorylates LAT, which recruits numerous signaling molecules to form the LAT signalosome. The LAT signalosome propagates signal branching to three major signaling pathways, the calcium signaling, the mitogen-activated protein kinase (MAPK) kinase and the nuclear factor NFkappaB (NF-kB) pathways, leading to the mobilization of transcription factors, that are critical for gene expression and essential for T cell growth and differentiation. The T cell repertoire is generated by V-D-J-C rearrangements. This repertoire is then shaped by intrathymic selection events to generate a peripheral T cell pool of self-MHC restricted, non-autoaggressive T cells. Post-thymic interaction of alpha-beta TCRs with the pMHCs shapes TCR structural and Functional Application (FUNC)tional avidity.

References	*Huppa JB, Ploegh HL: In vitro translation and assembly of a complete T cell receptor-CD3 complex. J Exp Med. 1997 Aug 4;186(3):393-403., URL: https://www.ncbi.nlm.nih.gov/pubmed/9236191,*Viney JL, Prosser HM, Hewitt CR, Lamb JR, Owen MJ: Generation of monoclonal antibodies against a human T cell receptor beta chain expressed in transgenic mice. Hybridoma. 1992 Dec;11(6):701-13., URL: https://www.ncbi.nlm.nih.gov/pubmed/1284120,*San José E, Alarcón B: Receptor engagement transiently diverts the T cell receptor heterodimer from a constitutive degradation pathway. J Biol Chem. 1999 Nov 19;274(47):33740-6., URL: https://www.ncbi.nlm.nih.gov/pubmed/term=receptor+engagement+transiently+diverts+the,*Pasare C, Mukherjee P, Verhoef A, Bansal P, Mendiratta SK, George A, Lamb JR, Rath S, Bal V: T cells in mice expressing a transgenic human TCR beta chain get positively selected but cannot be activated in the periphery by signaling through TCR. Int Immunol. 2001 Jan;13(1):53-62., URL: https://www.ncbi.nlm.nih.gov/pubmed/term=pasare+c+mukherjee+p,*Martin EP, Arnaud J, Alibaud L, Gouaillard C, Llobera R, Huchenq-Champagne A, Rubin B: Molecular mechanisms in the TCR (TCR alpha beta-CD3 delta epsilon, gamma epsilon) interaction with zeta 2 homodimers: clues from a 'phenotypic revertant' clone. Int Immunol. 1999 Jul;11(7):1005-15., URL: https://www.ncbi.nlm.nih.gov/pubmed/term=martin+ep+arnaud+j+alibaud+l

NCBI AND UNIPROT INFORMATION

NCBI GI #	294862488
UniProt Accession #	P01850; A0A5B8; A6NH51
Molecular Weight	21.9 kDa
NCBI Official Full Name	T-cell receptor beta-1 chain C region
UniProt Protein Name	T-cell receptor beta-1 chain C region
UniProt Gene Name	**TRBC1**
UniProt Entry Name	TRBC1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: https://www.aaabiotech.com/monoclonal/tcr-cbeta1-antibody-clone-jovi-1-flow-cytometry-elisa/129146