

ARG20994
anti-TCR beta antibody [H57-597]Package: 100 µg
Store at: -20°C

Summary

Product Description	Hamster Monoclonal antibody [H57-597] recognizes TCR beta
Tested Reactivity	Ms
Tested Application	Depletion, FACS, ICC/IF, IHC-P, IP
Specificity	Mouse TCRβ. The clone H57-597 does not react with γδ TCR-bearing cells. Plate-bound or soluble H57-597 activates αβ TCR-bearing T cells. In vitro and in vivo, H57-597 can induce immature thymocytes to undergo apoptosis. In vivo administration of H57-597 has been shown to deplete αβ TCR-bearing cells to near completion and prevent graft rejection.
Host	Hamster
Clonality	Monoclonal
Clone	H57-597
Isotype	IgG2
Target Name	TCR beta
Species	Mouse
Immunogen	TCR affinity purified from mouse T-cell hybridoma DO-11.10
Conjugation	Un-conjugated
Alternate Names	TCRB

Application Instructions

Application table	Application	Dilution
	Depletion	Assay-dependent
	FACS	Assay-dependent
	ICC/IF	Assay-dependent
	IHC-P	Assay-dependent
	IP	Assay-dependent
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Form	Liquid
Buffer	BBS (pH 8.2)
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw

cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note

For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol

TRB

Gene Full Name

T cell receptor beta chain

Background

T cell receptors 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. In a single cell, the T cell receptor loci are rearranged and expressed in the order delta, gamma, beta, and alpha. If both delta and gamma rearrangements produce functional chains, the cell expresses delta and gamma. If not, the cell proceeds to rearrange the beta and alpha loci. 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. Recombination of many different V segments with several J segments provides a wide range of antigen recognition. Additional diversity is attained by junctional diversity, resulting from the random addition of nucleotides by terminal deoxynucleotidyltransferase. Several V segments and one J segment of the beta locus are known to be incapable of encoding a protein and are considered pseudogenes. The beta locus also includes eight trypsinogen genes, three of which encode functional proteins and five of which are pseudogenes. Chromosomal abnormalities involving the T-cell receptor beta locus have been associated with T-cell lymphomas. [provided by RefSeq, Jul 2008]

Calculated Mw

35 kDa