

# APC/Cyanine7 anti-Mouse TCR $\beta$ chain mAb

**Catalog No.: A28478**

## Basic Information

**Observed MW****Calculated MW**

13 kDa

**Category**

Primary antibody

**Applications**

FC

**Cross-Reactivity**

Mouse

**Conjugate**

APC-Cy7. Ex:651nm. Em:779nm.

## 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 additional of nucleotides by terminal deoxynucleotidyltransferase. Several V segments of the beta locus are known to be incapable of encoding a protein and are considered pseudogenes. The beta locus also includes several trypsinogen genes.

## Recommended Dilutions

**FC** 1  $\mu$ g per million cells in  
100  $\mu$ l volume

## Immunogen Information

**Gene ID**

21577

**Swiss Prot**

A0A0B4J1G9

**Immunogen**

This information is considered to be commercially sensitive.

**Synonyms**

Tib; TCRbeta

## Contact

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## Product Information

**Source**

Armenian hamster

**Isotype**

Armenian hamster / IgG

**Purification**

Affinity purification

**Storage**

Store at 2-8°C. Avoid freeze.

Buffer: PBS with 0.09% Sodium azide and BSA ,pH7.2.