

# Biotin anti-Mouse TCR $\gamma/\delta$ mAb

Catalog No.: A28270

## Basic Information

### Observed MW

Refer to figures

### Calculated MW

### Category

Primary antibody

### Applications

FC

### Cross-Reactivity

Mouse

### CloneNo number

ACC0007

### Conjugate

Biotin

## 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 alpha and delta loci. Both the alpha and delta loci include V (variable), J (joining), and C (constant) segments and the delta locus also includes diversity (D) segments. The delta locus is situated within the alpha locus, between the alpha variable and joining genes. During T cell development, the delta 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 alpha chain is synthesized by recombination joining a single V segment with a J segment. For both chains, 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. Ten variable segments can be used in either alpha or delta chains and are described by TRAV/DV symbols. Several V and J segments of the alpha locus are known to be incapable of encoding a protein and are considered pseudogenes.

## Recommended Dilutions

FC  $\leq 0.25 \mu\text{g}$  per million cells  
in 100  $\mu\text{l}$  volume

## Immunogen Information

### Gene ID

110066/110067

### Swiss Prot

### Immunogen

Recombinant protein (or fragment). This information is considered to be commercially sensitive.

### Synonyms

Tcrdelta; TCRGV1S1; TCRGV2S1; TCRGV3S1; TCRGV5S3

## Contact

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## Product Information

### Source

Armenian Hamster

### Isotype

Armenian Hamster IgG

### Purification

Affinity purification

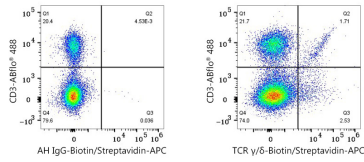
### Storage

Store at 2-8°C. Avoid freeze.

Buffer: PBS with 0.09% Sodium azide, 0.2% BSA, pH7.3.

## Validation Data

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Flow cytometry: 1X10<sup>6</sup> C57BL/6 mouse splenocytes were surface-stained with ABflo® 488 Rat anti-Mouse CD3 mAb (A27161, 5 µl/Test) and Biotin Armenian Hamster IgG isotype control (5 µl/Test, left) or Biotin anti-Mouse TCR γ/δ mAb (A28270, 0.25 µg, right), followed by APC Streptavidin staining. Cells in the lymphocyte gate were used for analysis.