



Mouse Anti-Human TCR V beta 5a monoclonal antibody, clone 2D2 (CABT-L544)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	This antibody targets TCR V beta 5a in FACS, IHC-F, and TCA applications and shows reactivity with Human, and Non-human primate samples.
Target	TCR V Beta 5a
Immunogen	Human TCR V beta 5(a)
Isotype	IgG1
Source/Host	Mouse
Species Reactivity	Human, Non-human primate
Clone	2D2
Purification	Protein G purified
Conjugate	Unconjugated
Applications	FC, IHC-F, T-Cell Activation
Format	Liquid
Concentration	0.2 mg/ml
Buffer	PBS with 0.5% BSA, glycerol
Preservative	0.1% Sodium Azide
Storage	4° C

BACKGROUND

Introduction

The ability of T cell receptors (TCR) to discriminate foreign from self-peptides presented by major histocompatibility complex (MHC) class II molecules is essential for an effective adaptive immune response. TCR recognition of self-peptides has been linked to autoimmune disease. Mutant self-peptides have been associated with tumors. Engagement of TCRs by a family of bacterial toxins known as superantigens has been responsible for toxic shock syndrome. Autoantibodies to V beta segments of T cell receptors have been isolated from patients with rheumatoid arthritis (RA) and systemic lupus erythematosus (SLE). The autoantibodies block TH1-mediated inflammatory autodestructive reactions and are believed to be a method by which the immune system compensates for disease. T Cell and TCR Diversity Most human T cells express the TCR alpha-beta and either CD4 or CD8 molecule (single positive, SP). A small number of T cells lack both CD4 and CD8 (double negative, DN). Increased percentages of alpha-beta DN T cells have been identified in some autoimmune and immunodeficiency disorders. Gamma-delta T cells are primarily found within the epithelium. They show less TCR diversity and recognize antigens differently than alpha-beta T cells. Subsets of gamma-delta T cells have shown antitumor and immunoregulatory activity.

Keywords

Tcrb; T-cell receptor beta chain; TCB; TCBC1; RATTB; RATTBC1; variable region-beta 8.5; T-cell receptor beta cluster

GENE INFORMATION

Entrez Gene ID

[6957](#)

UniProt ID

[P01850A0A5B9](#)