



Armenian Hamster Anti-Mouse TCR γ/δ Monoclonal antibody, clone UC7-13D5 (CABT-L4300)

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

PRODUCT INFORMATION

Product Overview

The UC7-13D5 monoclonal antibody reacts with an epitope on the mouse γ/δ TCR (gamma delta T cell receptor) complex. The γ/δ TCR is expressed by a subset of T cells found in the thymus, peripheral lymphoid tissues, intestinal epithelium, epidermis, and peritoneum. The exact function, ligand, and specificity of γ/δ TCR-expressing T cells are not completely understood. Studies suggest that these cells recognize bacterial ligands and some tumor cells in the context of MHC class I-like gene products and play a role in regulating the immune response during bacterial infection. The UC7-13D5 antibody has been shown to activate γ/δ T cells in vitro and deplete γ/δ T cells when administered in vivo.

Target	Mouse TCR γ/δ
Immunogen	Cloned CTL B18 cells
Isotype	IgG, κ
Source/Host	Armenian Hamster
Species Reactivity	Mouse
Clone	UC7-13D5
Purification	Protein A purified. Purity>95%. Determined by SDS-PAGE
Conjugate	Functional Grade
Applications	in vivo TCR γ/δ neutralization, in vitro γ/δ T cell stimulation, in vitro γ/δ T cell purification, FuncS, IP, FC

Molecular Weight	150 kDa
Format	0.2 µM filtered liquid. Purified from tissue culture supernatant in an animal free facility
Concentration	Lot specific
Size	5 mg
Buffer	PBS + 0.01% Tween, pH 6.5. Contains no stabilizers or preservatives. [low endotoxin azide-free] Endotoxin level: <2EU/mg (<0.002EU/µg). Determined by LAL gel clotting assay Related dilution buffer: CABT-LB02T, CABT-LB02
Preservative	None
Storage	The antibody solution should be stored undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.
Ship	Wet ice

BACKGROUND

Introduction	T cell receptors (TCR) 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 α and one β chain or one δ and one γ chain. 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. The g/d TCR associates with CD3 and is expressed on a T cell subset found in the thymus, the intestinal epithelium, and the peripheral lymphoid tissues and peritoneum. Most g/d T cells are CD4-/CD8-, some are CD8+. T cells expressing the g/dTCR have been shown to play a role in oral tolerance, tumor-associated tolerance, and autoimmune disease.
Keywords	CD_antigen CD3d;CD3D;CD3G;T cell antigen receptor delta polypeptide;T cell antigen receptor gamma polypeptide;T cell rearranging gene gamma;T cell receptor delta;T cell receptor delta locus;T cell receptor gamma;T cell receptor gamma chain C region PT gamma 1/2

GENE INFORMATION

Official Symbol	T cell receptors gamma + T cell receptors delta
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Synonyms	CD_antigen CD3d; CD3D; CD3G; T cell antigen receptor delta polypeptide; T cell antigen receptor gamma polypeptide; T cell rearranging gene gamma; T cell receptor delta; T cell receptor delta locus; T cell receptor gamma; T cell receptor gamma chain C region PT gamma 1/2
References	Benevides, L., et al. (2015). "IL17 Promotes Mammary Tumor Progression by Changing the Behavior of Tumor Cells and Eliciting Tumorigenic Neutrophils Recruitment." Cancer Res 75(18): 3788-3799. PubMed;