

## Product datasheet for **AM08059FC-N**

### T Cell Receptor (TCR) gamma/delta Hamster Monoclonal Antibody [Clone ID: UC7-13D5]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	UC7-13D5
Applications:	FC
Recommended Dilution:	<b>Flow Cytometry:</b> < / = 1 µg/10e6 cells. For flow cytometry, the suggested use of these reagents is in a final volume of 100 µl.
Reactivity:	Mouse
Host:	Hamster
Isotype:	IgG
Clonality:	Monoclonal
Specificity:	This Monoclonal antibody is specific to the <i>gamma-delta</i> heterodimer and plate-bound UC7-13D5 activates <i>gamma-delta</i> TCR-bearing cells. It does not react with <i>alpha-beta</i> TCR-expressing T cells. (Davis, M.M. 1990. Annu. Rev. Biochem. 59:475. Allison, J.P., and W.L. Havran. 1991. Annu. Rev. Immunol. 9:679. Klausner, R.D., and L.E. Samuelson. 1991. Cell 64:875. Dent, A.L., et al. 1990. Nature 343:714.)
Formulation:	PBS containing 0.09% Sodium Azide as preservative. Label: FITC State: Liquid purified Ig fraction. Label: Fluorescein Isothiocyanate Isomer 1
Concentration:	lot specific
Conjugation:	FITC
Storage:	Store the antibody undiluted at 2-8°C for one month or in (aliquots) at -20°C for longer. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.



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**Background:**

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 alpha and one beta chain or one delta and one gamma 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 TCR gamma/delta heterodimer of the CD3/T-cell receptor complex is clonotypic and consists of Ig-like variable and constant domains. (Ref.1) It is expressed during thymopoiesis and on the small subpopulation of gamma/delta TCR expressing T lymphocytes in the periphery. The majority of T cells present in some epithelial tissues are gamma/delta+ and have limited receptor diversity. (Ref.1,2) The TCR gamma/delta heterodimer recognizes peptide antigen bound to MHC antigens, and subsequent signal transduction mediated by the invariant chains leads to T cell activation. (Ref.3)

**Synonyms:**

TCRG, TCRD, T-Cell Receptor gamma, T-Cell Receptor delta, T-Cell Receptor gamma delta