

Monoclonal Antibody to T Cell Receptor (TCR) gamma/delta - FITC

Alternate names:	T-Cell Receptor delta, T-Cell Receptor gamma, T-Cell Receptor gamma delta, TCRD, TCRG
Catalog No.:	AM08059FC-N
Quantity:	0.5 mg
Concentration:	0.5 mg/ml
Background:	<p>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.</p> <p>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)</p>
Host / Isotype:	Hamster / IgG
Clone:	UC7-13D5
Format:	State: Liquid purified Ig fraction. Buffer System: PBS containing 0.09% Sodium Azide as preservative. Label: FITC – Fluorescein Isothiocyanate Isomer 1
Applications:	Flow Cytometry: < / = 1 µg/10e6 cells. (Ref.4-7) Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
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. (Ref.4-7) It does not react with <i>alpha-beta</i> TCR-expressing T cells. Species: Mouse. Other species not tested.

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.
Shelf life: one year from despatch.

General Readings:

1. Davis, M.M. 1990. Annu. Rev. Biochem. 59:475.
2. Allison, J.P., and W.L. Havran. 1991. Annu. Rev. Immunol. 9:679.
3. Klausner, R.D., and L.E. Samuelson. 1991. Cell 64:875.
4. Dent, A.L., et al. 1990. Nature 343:714.
5. Bluestone, J.A., et al. 1991. Immunol. Rev. 120:5.
6. Houlden, B.A., et al. 1989. Cold Spring Harbor Symp. Quant. Biol. 54:45.
7. Barrett, T.A., et al. 1991. Immunol. Res. 10:341.
8. Unpublished observations.

For research and in vitro use only. Not for diagnostic or therapeutic work.

Material Safety Datasheets are available at www.acris-antibodies.com or on request.

Antibody Hotline - Technical Questions - Antibody Location Service
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