

Product datasheet for **SM093F**

T Cell Receptor (TCR) gamma/delta Hamster Monoclonal Antibody [Clone ID: GL3]

Product data:

Product Type:	Primary Antibodies
Clone Name:	GL3
Applications:	FC, IHC
Recommended Dilution:	Flow Cytometry: The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity fc receptors. This Clone antibody (FITC conjugated) is reported to work on Immunohistochemistry on Frozen Sections.
Reactivity:	Mouse
Host:	Hamster
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	C57BL/6J intra epithelial lymphocytes. Spleen cells from an immunised Armenian hamster were fused with cells of the murine myeloma SP2/0 myeloma cell line.
Specificity:	This antibody reacts with TCR gamma/delta expressing lymphocytes. Clone GL3 has been shown to have depleting activity in vivo.
Formulation:	Contains 0.09% Sodium Azide as preservative and 0.5% BSA as stabilizer. Label: FITC State: Liquid purified IgG fraction. Label: Fluorescein Isothiocyanate Isomer 1
Concentration:	lot specific
Purification:	Affinity Chromatography on Protein A
Conjugation:	FITC
Storage:	Store 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 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 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. 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 addition of nucleotides by terminal deoxynucleotidyltransferase. Several V segments and one J segment of the beta locus are known to be incapable of encoding a protein and are considered pseudogenes. The beta locus also includes eight trypsinogen genes, three of which encode functional proteins and five of which are pseudogenes. Chromosomal abnormalities involving the T-cell receptor beta locus have been associated with T-cell lymphomas.

Synonyms:

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