

Product datasheet for **SM093P**

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

Product data:

Product Type:	Primary Antibodies
Clone Name:	GL3
Applications:	FC, IHC, IP
Recommended Dilution:	Flow Cytometry: Use 10 µl of 1/5-1/50 diluted antibody to label 10e6 cells in 100 µl. Immunoprecipitation. Immunohistochemistry on Frozen Sections.
Reactivity:	Mouse
Host:	Hamster
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	C57BL/6j intra epithelial lymphocytes.
Specificity:	Reacts with TCR gamma/delta expressing lymphocytes. Clone GL3 has been shown to have depleting activity <i>in vivo</i> (2,3).
Formulation:	PBS containing 0.09% Sodium Azide as preservative State: Purified State: Liquid purified IgG fraction
Concentration:	lot specific
Purification:	Affinity Chromatography
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. 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. 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. 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.

Synonyms:

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