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Product datasheet for SM093B

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

Product data:

Product Type:	Primary Antibodies
Clone Name:	GL3
Applications:	FC
Recommended Dilution:	Immunohistochemistry on frozen sections. Flow Cytometry.
Reactivity:	Mouse
Host:	Hamster
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	C57BL/6J intraepithelial lymphocytes Donor: Armenian Hamster. Fusion Partner: Murine myeloma cell line SP2/0
Specificity:	This monoclonal antibody reacts with the surface on all gd TCR bearing cells and does not react with receptors on ab TCR positive cells. It is thought that this clone may be specific for a determinant present on Cd 7. The gd T cell receptors are present on murine CD4-CD8- thymocytes, peripheral T cells, intestinal CD8+ intraepithelial lymphocytes and Thy 1+ dendritic epidermal cells in the skin. Use of this antibody in conjunction with an anti-CD3 monoclonal antibody (anti-CD3e Monoclonal Antibody) allows for accurate measurements of the mutually exclusive sub-populations of gd TCR and ab TCR bearing T cells. This anti mouse gd TCR monoclonal antibody has also been used successfully for the characterization of murine intraepithelial lymphocytes.
Formulation:	PBS, 0.02% NaN3 and EIA grade BSA as a stabilizing protein to bring total protein concentration to 4-5 mg/ml Label: Biotin State: Liquid purified Ig
Concentration:	lot specific
Purification:	Protein G Chromatography
Conjugation:	Biotin

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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.
Synonyms:	TCRG, TCRD, T-Cell Receptor gamma, T-Cell Receptor delta, T-Cell Receptor gamma delta

Note:

Protocol: **FLOW CYTOMETRY ANALYSIS:**

Method:
1. Prepare a cell suspension in media A. For cell preparations, deplete the red blood cell population with Lympholyte®-M cell separation medium.
2. Wash 2 times.
3. Resuspend the cells to a concentration of 2x10e7 cells/ml in media A. Add 50 µl of this suspension to each tube (each tube will then contain 1 x 10e6 cells, representing 1 test).
4. To each tube, add 1.0 µg* of this Ab per 10e6 cells.
5. Vortex the tubes to ensure thorough mixing of antibody and cells.
6. Incubate the tubes for 30 minutes at 4°C.
7. Wash 2 times at 4°C.
8. Add 100 µl of secondary antibody (Streptavidin-PE) at a 1:50 dilution
9. Incubate tubes at 4°C for 30-60 minutes (It is recommended that tubes are protected from light since most fluorochromes are light sensitive).
10. Wash 2 times at 4°C.
11. Resuspend the cell pellet in 50 µl ice cold media B.
12. Transfer to suitable tubes for flow cytometric analysis containing 15 µl of propidium iodide at 0.5 mg/ml in PBS. This stains dead cells by intercalating in DNA.

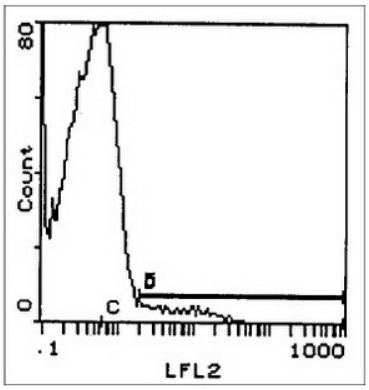
Media:
A. Phosphate buffered saline (pH 7.2) + 5% normal serum of host species + sodium azide (100 µl of 2M sodium azide in 100 mls).
B. Phosphate buffered saline (pH 7.2) + 0.5% Bovine serum albumin + sodium azide (100 µl of 2M sodium azide in 100 mls).

Results - Tissue Distribution by Flow Cytometry Analysis:
Mouse Strain: CBA/J
Cell Concentration: 1x10e6 cells per test
Antibody Concentration Used: 1.0 µg/10e6 cells
Isotypic Control: Biotin Hamster IgG

Cell Source Percentage of cells stained above control:
Thymus: 3.3%
Splenic T Cells: 3.7 %

Strain Distribution by Flow Cytometry Analysis:
Cell Concentration: 1x10e6 cells per test
Antibody Concentration Used: 1.0 µg/10e6 cells
Strains Tested: C57BL/6, CBA/J, BALB/c, AKR, C3H/He
Positive: C57BL/6, CBA/J, BALB/c, AKR, C3H/He
Negative: none

Product images:



Cell Source: Splenic T Cells
Percentage of cells stained above control: 3.7%