

Technical Data Sheet

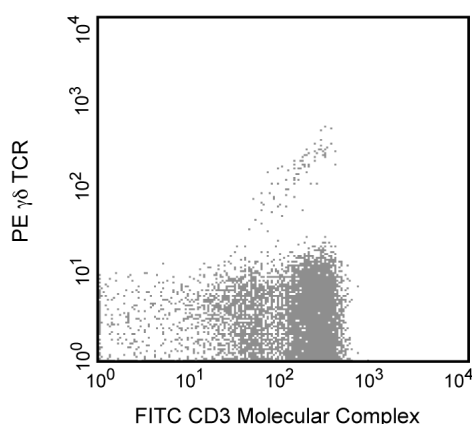
PE Hamster Anti-Mouse $\gamma\delta$ T-Cell Receptor

Product Information

Material Number:	561997
Size:	25 μ g
Concentration:	0.2 mg/ml
Clone:	GL3
Immunogen:	C57BL/6 Mouse Intestinal Intraepithelial Lymphocytes
Isotype:	Armenian Hamster IgG2, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The GL3 antibody reacts with a common epitope of the δ chain of the T-cell Receptor (TCR) complex on $\gamma\delta$ TCR-expressing T lymphocytes and NK-T cells of all mouse strains tested. It does not react with $\alpha\beta$ TCR-bearing T cells. In the mouse, cells expressing the $\gamma\delta$ TCR are found in the thymus, intestinal epithelium, epidermis, dermis, pulmonary epithelium, peritoneum, liver, and peripheral lymphoid organs.



Two-color analysis of the expression of $\gamma\delta$ TCR on peripheral T lymphocytes. C3H/He lymph node cells were incubated simultaneously with PE Hamster anti-Mouse $\gamma\delta$ T-Cell Receptor and FITC Rat anti-Mouse CD3 Molecular Complex (Cat. No. 555274) monoclonal antibodies. Flow cytometry was performed on a BD FACScan™ flow cytometry system.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

Flow cytometry	Routinely Tested
----------------	------------------

Recommended Assay Procedure:

For flow cytometry of cell suspensions from peripheral lymphoid tissues, it is recommended that multicolor staining be performed to distinguish T lymphocytes from non-T cells.

Suggested Companion Products

Catalog Number	Name	Size	Clone
555274	FITC Rat Anti-Mouse CD3 Molecular Complex	0.5 mg	17A2
550085	PE Hamster IgG2, κ Isotype Control	0.1 mg	B81-3
554656	Stain Buffer (FBS)	500 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
4. An isotype control should be used at the same concentration as the antibody of interest.

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.268.5430	32.53.720.550	0120.8555.90	65.6861.0633	0800.771.7157

For country-specific contact information, visit bdbiosciences.com/how_to_order/

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

BD, BD Logo and all other trademarks are the property of Becton, Dickinson and Company. ©2011 BD



5. Although hamster immunoglobulin isotypes have not been well defined, BD Biosciences Pharmingen has grouped Armenian and Syrian hamster IgG monoclonal antibodies according to their reactivity with a panel of mouse anti-hamster IgG mAbs. A table of the hamster IgG groups, Reactivity of Mouse Anti-Hamster Ig mAbs, may be viewed at http://www.bdbiosciences.com/documents/hamster_chart_11x17.pdf.
6. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

Goodman T, LeCorre R, Lefrancois L. A T-cell receptor gamma delta-specific monoclonal antibody detects a V gamma 5 region polymorphism. *Immunogenetics*. 1992; 35(1):65-68. (Clone-specific: Flow cytometry)

Goodman T, Lefrancois L. Intraepithelial lymphocytes. Anatomical site, not T cell receptor form, dictates phenotype and function. *J Exp Med*. 1989; 170(5):1569-1581. (Clone-specific: Flow cytometry)

Kaufmann SH, Blum C, Yamamoto S. Crosstalk between alpha/beta T cells and gamma/delta T cells in vivo: activation of alpha/beta T-cell responses after gamma/delta T-cell modulation with the monoclonal antibody GL3. *Proc Natl Acad Sci U S A*. 1993; 90(20):9620-9624. (Clone-specific: Flow cytometry)

King DP, Hyde DM, Jackson KA, et al. Cutting edge: protective response to pulmonary injury requires gamma delta T lymphocytes. *J Immunol*. 1999; 162(9):5033-5036. (Biology: Flow cytometry)

Lefrancois L. Phenotypic complexity of intraepithelial lymphocytes of the small intestine. *J Immunol*. 1991; 147(6):1746-1751. (Biology: Flow cytometry)

MacDonald HR, Schreyer M, Howe RC, Bron C. Selective expression of CD8 alpha (Ly-2) subunit on activated thymic gamma/delta cells. *Eur J Immunol*. 1990; 20(4):927-930. (Biology: Flow cytometry)

Shinohara K, Ikarashi Y, Maruoka H, et al. Functional and phenotypical characteristics of hepatic NK-like T cells in NK1.1-positive and -negative mouse strains. *Eur J Immunol*. 1999; 29(6):1871-1878. (Biology: Flow cytometry)

Skeen MJ, Ziegler HK. Induction of murine peritoneal gamma/delta T cells and their role in resistance to bacterial infection. *J Exp Med*. 1993; 178(3):971-984. (Biology: Flow cytometry)

Tamaki K, Yasaka N, Chang CH, et al. Identification and characterization of novel dermal Thy-1 antigen-bearing dendritic cells in murine skin. *J Invest Dermatol*. 1996; 106(3):571-575. (Biology: Flow cytometry)

Tigelaar RE, Lewis JM, Bergstresser PR. TCR gamma/delta+ dendritic epidermal T cells as constituents of skin-associated lymphoid tissue. *J Invest Dermatol*. 1990; 94(6):58S-63S. (Biology: Flow cytometry)

Vicari AP, Mocci S, Openshaw P, O'Garra A, Zlotnik A. Mouse gamma delta TCR+NK1.1+ thymocytes specifically produce interleukin-4, are major histocompatibility complex class I independent, and are developmentally related to alpha beta TCR+NK1.1+ thymocytes. *Eur J Immunol*. 1996; 26(7):1424-1429. (Biology: Flow cytometry)