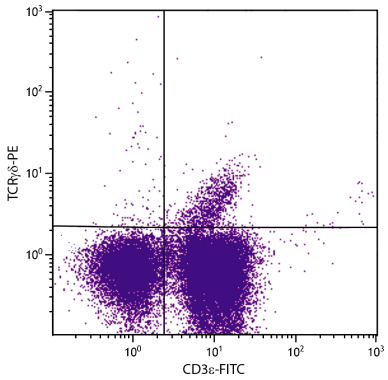
SouthernBiotech

Hamster Anti-Mouse TCRγδ

Cat. No.	Format	Size
1780-01	Purified (UNLB)	0.5 mg
1780-02	Fluorescein (FITC)	0.5 mg
1780-08	Biotin (BIOT)	0.5 mg
1780-09	R-phycoerythrin (PE)	0.1 mg
1780-09L	R-phycoerythrin (PE)	0.2 mg
1780-14	Low Endotoxin/Azide-Free (LE/AF)	0.5 mg
1780-30	Alexa Fluor® 488 (AF488)	0.1 mg



C57BL/6 mouse mesenteric lymph node cells were stained with Hamster Anti-Mouse TCRγδ-PE (SB Cat. No. 1780-09) and Rat Anti-Mouse CD3ε-FITC (SB Cat. No. 1535-02).

Overview

Clone UC7-13D5
Isotype Hamster (Armenian) IgG_3
Immunogen Mouse T cell clone G8
Specificity Mouse TCRγδ
Alternate Name(s) N/A

Description

The TCRγδ 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 γδ 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 TCRγδ heterodimer recognizes peptide antigen bound to MHC antigens and subsequent signal transduction mediated by the invariant chains leads to T cell activation. The monoclonal antibody UC7-13D5 is specific for the γδ heterodimer and plate-bound UC7-13D5 activates γδ TCR-bearing cells. This antibody does not react with αβ TCR-expressing T cells.

Applications

FC – Quality tested [6]
IP – Reported in literature [1,2]
Costim – Reported in literature [1,5]
Depletion – Reported in literature [3,4]

Working Dilutions

Flow Cytometry	FITC, BIOT, and AF488 conjugates	≤ 1 µg/10^6 cells
	PE conjugate	≤ 0.3 µg/10^6 cells
	For flow cytometry, the suggested use of these reagents is in a final volume of 100 µL	
Other Applications	Since applications vary, you should determine the optimum working dilution for the product that is appropriate for your specific need.	

For Research Use Only. Not for Diagnostic or Therapeutic Use.

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Handling and Storage

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of borate buffered saline, pH 8.2. *No preservatives or amine-containing buffer salts added*. Store at 2-8°C.
- The fluorescein (FITC) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN_3. Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN_3. Store at 2-8°C.
- The R-phycoerythrin (PE) conjugate is supplied as 0.1 mg in 1.0 mL or 0.2 mg in 2.0 mL of PBS/NaN_3 and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The low endotoxin, azide-free (LE/AF) antibody is supplied as 0.5 mg purified immunoglobulin in 1.0 mL of PBS. Contains no preservative; handle under aseptic conditions. Store at 2-8°C or aliquot into smaller volumes and store at -20°C. Avoid multiple freeze / thaw cycles.
- The Alexa Fluor® 488 (AF488) conjugate is supplied as 0.1 mg in 0.2 mL of PBS/NaN_3. Store at 2-8°C.
- Protect fluorochrome-conjugated forms from light. Reagents are stable for the period shown on the label if stored as directed.

Warning

Some reagents contain sodium azide. Please refer to product specific SDS.

References

1. Bluestone JA, Cron RQ, Barrett TA, Houlden B, Sperling AI, Dent A, et al. Repertoire development and ligand specificity of murine TCR$\gamma\delta$ cells. Immunol Rev. 1991;120:5-33. (IP, Costim)
2. Belles C, Kuhl AL, Donoghue AJ, Sano Y, O'Brien RL, Born W, et al. Bias in the $\gamma\delta$ T cell response to Listeria monocytogenes. Vδ6.3$^+$ cells are a major component of the $\gamma\delta$ T cell response to Listeria monocytogenes. J Immunol. 1996;156:4280-9. (IP)
3. Hiromatsu K, Yoshikai Y, Matsuzaki G, Ohga S, Muramori K, Matsumoto K, et al. A protective role of gamma/delta T cells in primary infection with Listeria monocytogenes in mice. J Exp Med. 1992;175:49-56. (Depletion)
4. Shibata K, Yamada H, Hara H, Kishihara K, Yoshokai Y. Resident Vδ1$^+$ $\gamma\delta$ T cells control early infiltration of neutrophils after Escherichia coli infection via IL-17 production. J Immunol. 2007;178:4466-72. (Depletion)
5. Sperling AI, Linsley PS, Barrett TA, Bluestone JA. CD28-mediated costimulation is necessary for the activation of T cell receptor-$\gamma\delta^+$ T lymphocytes. J Immunol. 1993;151:6043-50. (Costim)
6. Conrad ML, Davis WC, Koop BF. TCR and CD3 antibody cross-reactivity in 44 species. Cytometry. 2007;71A:925-33. (FC, Woodland Caribou Reactivity)

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