

**PerCP/Cyanine5.5 anti-rat CD3**

**Catalog # / Size:** 1607090 / 100 µg  
1607085 / 25 µg

**Clone:** 1F4

**Isotype:** Mouse IgM, κ

**Immunogen:** F344 rat spleen cells stimulated with PMA and calcium ionophore

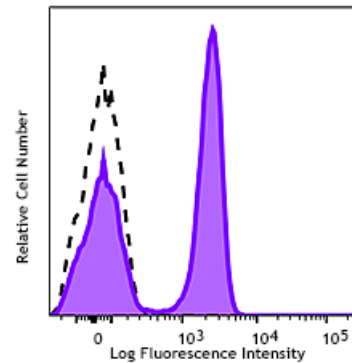
**Reactivity:** Rat

**Preparation:** The antibody was purified by affinity chromatography and conjugated with PerCP/Cyanine5.5 under optimal conditions.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide

**Workshop Number:** HCDM listed

**Concentration:** 0.2 mg/mL



Lewis rat splenocytes were stained with CD3 (clone 1F4) PerCP/Cyanine5.5 (filled histogram) or mouse IgM, κ PerCP/Cyanine5.5 isotype control (open histogram).

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤ 1.0 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application.

\* PerCP/Cyanine5.5 has a maximum absorption of 482 nm and a maximum emission of 690 nm.

**Application Notes:** Immobilized 1F4 antibody can induce T cell proliferation *in vitro*. Additional reported applications (for relevant formats of this clone) include: immunohistochemistry of acetone-fixed frozen sections<sup>1</sup> and formaldehyde-fixed paraffin embedded sections<sup>4,5</sup> immunofluorescence microscopy<sup>3</sup>, *in vivo* activation of T cell responses<sup>1</sup>, and *in vivo* inhibition of T cell responses<sup>2</sup>.

- Application References:**
1. Tanaka T, *et al.* 1989. *J. Immunol.* 142:2791. (Activ, IHC, IP)
  2. Nicholls MR, *et al.* 1993. *Transplantation* 55:459. (Block)
  3. Elbe A, *et al.* 1993. *J. Invest. Dermatol.* 102:74. (IF)
  4. Baba T, *et al.* 2006. *Blood* 107:2004. (IHC)
  5. Fujishiro J, *et al.* 2010. *Am. J. Transplant.* 10:1545-55. (IHC-P)
  6. Li X, *et al.* 2009. *J. Immunol.* 183:3955. (FC) [PubMed](#)

**Description:** CD3 is a complex composed of δ, γ, ε, and ζ chains. They are 20-25 kD members of the immunoglobulin superfamily and associated with the T cell receptor (TCR). CD3 is expressed on thymocytes, peripheral T cells, some NK-T cells, and dendritic epidermal T cells. CD3 is involved in antigen recognition, signal transduction, and T cell activation.

- Antigen** 1. Tanaka T, et al. 1989 *J. Immunol.* 142:2791.  
**References:** 2. Elbe A, et al. 1993. *J. Invest. Dermatol.* 102:74.