

# Product Data Sheet

## Alexa Fluor® 488 anti-rat CD3

**Catalog # / Size:** 201405 / 25 µg  
201406 / 100 µg

**Clone:** 1F4

**Isotype:** Mouse IgM, κ

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

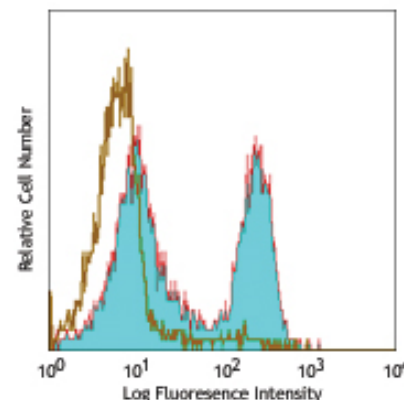
**Reactivity:** Rat

**Preparation:** The antibody was conjugated with Alexa Fluor® 488 under optimal conditions, and is at >85% purity. The solution is free of unconjugated Alexa Fluor® 488.

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

**Concentration:** 0.5 mg/ml

**Storage:** The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



LOU rat splenocytes stained with 1F4  
Alexa Fluor® 488

## Applications:

**Applications:** FC - *Quality tested*  
IHC, IF - *Reported in the literature*

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤ 1.0 µg per 10<sup>6</sup> cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

\* Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 nm.

\*\* Alexa Fluor® is a registered trademark of Molecular Probes, Inc. Alexa Fluor® dye antibody conjugates are sold under license from Molecular Probes, Inc. for research use only, except for use in combination with microarrays and high content screening, and are covered by pending and issued patents.

**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</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. 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 References:**

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

### Related Products:

**Product**  
Cell Staining Buffer  
Alexa Fluor® 488 Mouse IgM, κ Isotype Ctrl

### Clone

MM-30

### Application

FC, ICC, ICFC  
FC, ICFC



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