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Product Data Sheet

LEAF™ Purified anti-rat CD3

Catalog # / Size: 201410 / 500 µg

Clone: 1F4

Isotype: Mouse IgM, κ

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

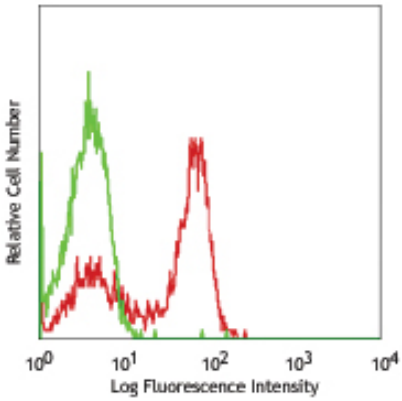
Reactivity: Rat

Preparation: The LEAF™ (Low Endotoxin, Azide-Free) antibody was purified by affinity chromatography.

Formulation: 0.2 µm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is <0.1 EU/µg of the protein (<0.01 ng/µg of the protein) as determined by the LAL test.

Concentration: 1.0 mg/ml

Storage: The antibody solution should be stored undiluted at 4°C. This LEAF™ solution contains no preservative; handle under aseptic conditions.



LOU rat splenocytes stained with purified 1F4, followed by anti-mouse Ig FITC

Applications:

Applications: FC - *Quality tested*

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 ≤0.25 µg per million cells in 100 µl volume or 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

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[1] and formaldehyde- fixed paraffin embedded sections[4] immunofluorescence microscopy[3], *in vivo* activation of T cell responses[1], and *in vivo* inhibition of T cell responses[2].

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	Clone	Application
LEAF™ Purified Mouse IgM, κ Isotype Ctrl	MM-30	FC, ICFC, ICC, IF, FA
Cell Staining Buffer		FC, ICC, ICFC
RBC Lysis Buffer (10X)		FC, ICFC

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