Technical Data Sheet

Alexa Fluor® 647 Rat Anti-Mouse CD3 Molecular Complex

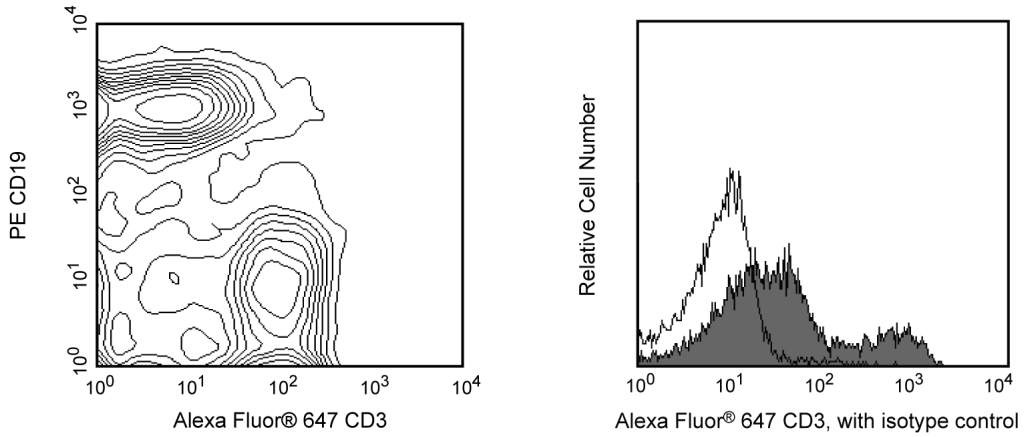
Product Information

Material Number:	**557869**
Size:	0.1 mg
Concentration:	0.2 mg/ml
Clone:	17A2
Immunogen:	γδ TCR-positive T-T hybridoma D1
Isotype:	Rat (SD) IgG2b, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 17A2 antibody reacts with the T-cell receptor-associated CD3 complex, which is expressed on thymocytes and mature T lymphocytes of all mouse strains tested. Plate-bound mAb 17A2 can induce IL-2 production by T cells in the absence of accessory cells. Binding of 17A2 antibody to T cells can be blocked by the anti-CD3e mAb 145-2C11, suggesting that 17A2 antibody recognizes an epitope of the CD3 epsilon chain. In vivo treatment with 17A2 mAb partially depletes T lymphocytes and temporarily down-modulates CD3 expression on T cells.

This antibody is routinely tested by flow cytometric analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



CD3 expression in spleen and thymus. *CD57BL/6 splenocytes were simultaneously stained with Alexa Fluor® 647 mAb 17A2 and PE rat anti-mouse CD19 mAb 1D3 (Cat. No. 557399, left panel). C57BL/6 thymocytes were stained with either Alexa Fluor® 647-conjugated mAb 17A2 (right panel, filled histogram) or Alexa Fluor® 647-conjugated rat IgG2b, κ isotype control mAb A95-1 (Cat. No. 557691) (right panel, empty histogram). Flow cytometry was performed on a BD FACSCalibur™ flow cytometry system.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated to Alexa Fluor® 647 under optimum conditions, and unreacted Alexa Fluor® 647 was removed.
Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
557691	Alexa Fluor® 647 Rat IgG2b, κ Isotype Control	0.1 mg	A95-1
557399	PE Rat Anti-Mouse CD19	0.1 mg	1D3

BD Biosciences

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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. Alexa Fluor® 647 fluorochrome emission is collected at the same instrument settings as for allophycocyanin (APC).
5. The Alexa Fluor®, Pacific Blue™, and Cascade Blue® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, excluding use in combination with microarrays, or as analyte specific reagents. The Alexa Fluor® dyes (except for Alexa Fluor® 430), Pacific Blue™ dye, and Cascade Blue® dye are covered by pending and issued patents.
6. Alexa Fluor is a registered trademark of Molecular Probes, Inc., Eugene, OR.
7. 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

Miescher GC, Schreyer M, MacDonald HR. Production and characterization of a rat monoclonal antibody against the murine CD3 molecular complex. *Immunol Lett.* 1989; 23(2):113-118.(Immunogen: Cytotoxicity, Functional assay, Immunohistochemistry, Immunoprecipitation, Stimulation)

Mysliwietz J, Thierfelder S. Antilymphocytic antibodies and marrow transplantation. XII. Suppression of graft-versus-host disease by T-cell-modulating and depleting antimouse CD3 antibody is most effective when preinjected in the marrow recipient. *Blood.* 1992; 80(10):2661-2667.(Clone-specific: Depletion)