

Store at
4°C

CD3 (17A2) Rat mAb (redFluor™ 710 Conjugate)

#26582

Cell Signaling
TECHNOLOGY®Support: +1-978-867-2388 (U.S.)
www.cellsignal.com/supportOrders: 877-616-2355 (U.S.)
orders@cellsignal.comEntrez-Gene ID #12501, 12502
UniProt ID #P22646, P11942

New 09/18

For Research Use Only. Not For Use In Diagnostic Procedures.

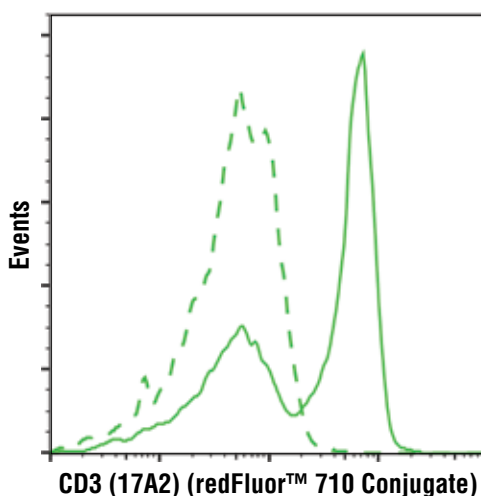
Applications
F
EndogenousSpecies Cross-Reactivity
MIsotype
Rat IgG2b

Description: This Cell Signaling Technology antibody is conjugated to redFluor™ 710 and tested in-house for direct flow cytometric analysis in mouse cells.

Background: When T cells encounter antigens via the T cell receptor (TCR), information about the quantity and quality of antigens is relayed to the intracellular signal transduction machinery (1). This activation process depends mainly on CD3 (Cluster of Differentiation 3), a multiunit protein complex that directly associates with the TCR. CD3 is composed of four polypeptides: ζ , γ , ϵ and δ . Each of these polypeptides contains at least one immunoreceptor tyrosine-based activation motif (ITAM) (2). Engagement of TCR complex with foreign antigens induces tyrosine phosphorylation in the ITAM motifs and phosphorylated ITAMs function as docking sites for signaling molecules such as ZAP-70 and p85 subunit of PI-3 kinase (3,4). TCR ligation also induces a conformational change in CD3 ϵ , such that a proline region is exposed and then associates with the adaptor protein Nck (5).

Specificity/Sensitivity: CD3 (17A2) Rat mAb (redFluor™ 710 Conjugate) recognizes endogenous levels of total CD3 ϵ , CD3 γ , and CD3 δ proteins. This antibody detects epitopes within the extracellular domains.

Source/Purification: This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation.



Flow cytometric analysis of live mouse splenocytes using CD3 (17A2) Rat mAb (redFluor™ 710 Conjugate) (solid line) compared to concentration-matched Rat (LTF-2) mAb IgG2b Isotype Control (redFluor™ 710 Conjugate) #90283 (dashed line).

Storage: Supplied in 10 mM NaH₂PO₄, 150 mM NaCl, 0.09% Na₂S₂O₃, 0.1% gelatin, pH 7.2. This product is stable for 6 months when stored at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.

Recommended Antibody Dilutions:

Flow Cytometry 1:40

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com.

Background References:

- (1) Kuhns, M.S. et al. (2006) *Immunity* 24, 133-139.
- (2) Pitcher, L.A. and van Oers, N.S. (2003) *Trends Immunol.* 24, 554-560.
- (3) Osman, N. et al. (1996) *Eur. J. Immunol.* 26, 1063-1068.
- (4) Hatada, M.H. et al. (1995) *Nature* 377, 32-38.
- (5) Gil, D. et al. (2002) *Cell* 109, 901-912.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.