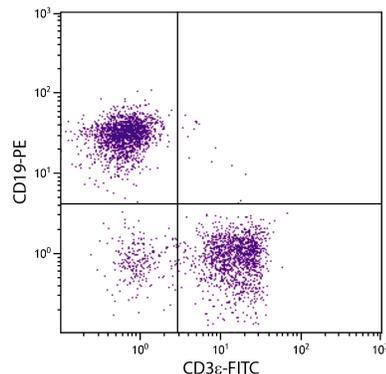




Rat Anti-Mouse CD3 ϵ

Cat. No.	Format	Size
1535-01	Purified (UNLB)	0.5 mg
1535-02	Fluorescein (FITC)	0.5 mg
1535-02S	Fluorescein (FITC)	0.1 mg
1535-08	Biotin (BIOT)	0.5 mg
1535-09	R-phycoerythrin (PE)	0.1 mg
1535-09L	R-phycoerythrin (PE)	0.2 mg
1535-11	Allophycocyanin (APC)	0.1 mg
1535-13	Spectral Red [®] (SPRD)	0.1 mg
1535-14	Low Endotoxin, Azide-Free (LE/AF)	0.5 mg
1535-15	Cyanine 5 (CY5)	0.1 mg



C57BL/6 mouse splenocytes were stained with Rat Anti-Mouse CD3 ϵ -FITC (SB Cat. No. 1535-02) and Rat Anti-Mouse CD19-PE (SB Cat. No. 1575-09).

Overview

Clone	C363.29B
Isotype	Rat (Lewis) IgG _{2b} K
Immunogen	IL-4 producing Th2 cell lines including D10
Specificity	Mouse CD3 ϵ ; Mr 25 kDa
Alternate Name(s)	CD3 epsilon

Description

CD3 ϵ , a member of the immunoglobulin superfamily of cell surface receptors, is comprised of five invariable chain ranging in size from 16-28 kDa and is closely associated with the T cell antigen receptor (TCR). It is expressed on all T cells of all mouse strains. CD3 plays a major role in signaling during antigen recognition, leading to T-cell activation. The monoclonal antibody C363.29B recognizes an epitope on the 25 kDa ϵ chain of the CD3/TCR complex. In the presence of Fc receptor-bearing accessory cells, soluble C363.29B can activate primed and naïve T cell *in vitro*. Immobilized C363.29B monoclonal antibody can also activate both normal T lymphocytes and cloned T cell lines provided the appropriate accessory signals are present. The monoclonal antibody is cytolytic, easily used for cell surface staining, and a good immunoprecipitating antibody.

Applications

FC – Quality tested ^{1,7-12}
 IHC-FS – Reported in literature ²⁻⁴
 IHC-PS – Reported in literature ^{5,6}
 IP – Reported in literature ¹
 Depletion – Reported in literature ¹
 Activ – Reported in literature ^{1,4}
 CMCD – Reported in literature ¹

Working Dilutions

Flow Cytometry	FITC and BIOT conjugates	$\leq 3 \mu\text{g}/10^6$ cells
	PE, APC, SPRD, and CY5 conjugates	$\leq 1 \mu\text{g}/10^6$ cells

For flow cytometry, the suggested use of these reagents is in a final volume of 100 μL

Other Applications Since applications vary, you should determine the optimum working dilution for the product that is appropriate for your specific need.

For Research Use Only. Not for Diagnostic or Therapeutic Use.

Handling and Storage

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of borate buffered saline, pH 8.2. *No preservatives or amine-containing buffer salts added.* Store at 2-8°C.
- The fluorescein (FITC) conjugate is supplied as 0.5 mg or 0.1 mg in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- The R-phycoerythrin (PE) conjugate is supplied as 0.1 mg in 1.0 mL or 0.2 mg in 2.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The allophycocyanin (APC) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The Spectral Red® (SPRD) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The low endotoxin, azide-free (LE/AF) antibody is supplied as 0.5 mg purified immunoglobulin in 1.0 mL of PBS. Contains no preservative; handle under aseptic conditions. Store at 2-8°C or aliquot into smaller volumes and store at -20°C. Avoid multiple freeze / thaw cycles.
- The Cyanine 5 (CY5) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- Protect fluorochrome-conjugated forms from light. Reagents are stable for the period shown on the label if stored as directed.

Warning

Some reagents contain sodium azide. Please refer to product specific SDS.

References

1. Portoles P, Rojo J, Golby A, Bonneville M, Gromkowski S, Greenbaum K, et al. Monoclonal antibodies to murine CD3 ϵ define distinct epitopes one of which may interact with CD4 during T cell activation. *J Immunol.* 1989;142:4169-75. (Immunogen, FC, IP, Depletion, Activ, CMCD)
2. Stanic AK, Stein CM, Morgan AC, Fazio S, Linton MF, Wakeland EK, et al. Immune dysregulation accelerates atherosclerosis and modulates plaque composition in systemic lupus erythematosus. *Proc Natl Acad Sci USA.* 2006;103:7018-23. (IHS-FS)
3. Ubogu EE, Yosef N, Xia RH, Sheikh KA. Behavioral, electrophysiological, and histopathological characterization of a severe murine chronic demyelinating polyneuritis model. *J Peripher Nerv Syst.* 2012;17:53-61. (IHC-FS)
4. Klingenberg R, Gerdes N, Badeau RM, Gisterà A, Strodroff D, Ketelhuth DF, et al. Depletion of FOXP3⁺ regulatory T cells promotes hypercholesterolemia and atherosclerosis. *J Clin Invest.* 2013;123:1323-34. (Activ, IHC-FS)
5. Whiteland JL, Nicholls SM, Shimeld C, Easty DL, Williams NA, Hill TJ. Immunohistochemical detection of T-cell subsets and other leukocytes in paraffin-embedded rat and mouse tissues with monoclonal antibodies. *J Histochem Cytochem.* 1995;43:313-20. (IHC-PS)
6. Chen L, Lin S, Amin S, Overbergh L, Maggolino G, Chan LS. VCAM-1 blockade delays disease onset, reduces disease severity and inflammatory cells in an atopic dermatitis model. *Immunol Cell Biol.* 2010;88:334-42. (IHC-PS)
7. Katayama Y, Hidalgo A, Peired A, Frenette PS. Integrin $\alpha_4\beta_7$ and its counterreceptor MAdCAM-1 contribute to hematopoietic progenitor recruitment into bone marrow following transplantation. *Blood.* 2004;104:2020-26. (FC)
8. Avagyan S, Glouchkova L, Choi J, Snoeck H. A quantitative trait locus on chromosome 4 affects cycling of hematopoietic stem and progenitor cells through regulation of TGF- β 2 responsiveness. *J Immunol.* 2008;181:5904-11. (FC)
9. Olah M, Ping G, De Haas AH, Brouwer N, Meerlo P, van der Zee EA, et al. Enhanced hippocampal neurogenesis in the absence of microglia T cell interaction and microglia activation in the murine running wheel model. *Glia.* 2009;57:1046-61. (FC)
10. Safari D, Dekker HA, Rijkers G, Snippe H. Codelivery of adjuvants at the primary immunization site is essential for evoking a robust immune response to neoglycoconjugates. *Vaccine.* 2011;29:849-54. (FC)
11. He X, Nair A, Mekasha S, Alroy J, O'Connell CM, Ingalls RR. Enhanced virulence of Chlamydia muridarum respiratory infections in the absence of TLR2 activation. *PLoS One.* 2011;6(6):e20846. (FC)
12. Grødeland G, Mjaaland S, Tunheim G, Fredriksen AB, Bogen B. The specificity of targeted vaccines for APC surface molecules influences the immune response phenotype. *PLoS One.* 2013;8(11):e80008. (FC)

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Spectral Red® is a PE/CY5 tandem conjugate.

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