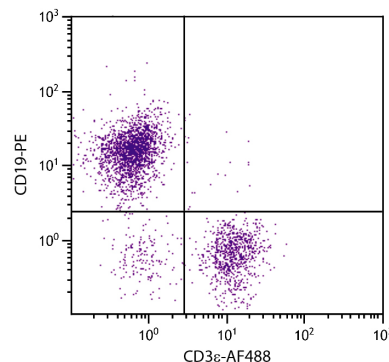




Hamster Anti-Mouse CD3 ϵ

Cat. No.	Format	Size
1530-01	Purified (UNLB)	0.5 mg
1530-02	Fluorescein (FITC)	0.5 mg
1530-02S	Fluorescein (FITC)	0.1 mg
1530-09	R-phycoerythrin (PE)	0.1 mg
1530-09L	R-phycoerythrin (PE)	0.2 mg
1530-11	Allophycocyanin (APC)	0.1 mg
1530-13	Spectral Red [®] (SPRD)	0.1 mg
1530-14	Low Endotoxin, Azide-Free (LE/AF)	0.5 mg
1530-30	Alexa Fluor [®] 488 (AF488)	0.1 mg
1530-31	Alexa Fluor [®] 647 (AF647)	0.1 mg



BALB/c mouse splenocytes were stained with Hamster Anti-Mouse CD3 ϵ -AF488 (SB Cat. No. 1530-30) and Rat Anti-Mouse CD19-PE (SB Cat. No. 1575-09).

Overview

Clone	145-2C11
Isotype	Hamster (Armenian) IgG ₁
Immunogen	H-2K ^b -specific murine cytotoxic T-lymphocyte (CTL) clone BM10-37
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 chains 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 145-2C11 monoclonal antibody recognizes an epitope on the 25 kDa ϵ chain of the CD3/TCR complex. In the presence of Fc receptor-bearing accessory cells, soluble 145-2C11 can activate primed and naïve T cell *in vitro*. 145-2C11 can also induce redirected lysis of specific target cells by CTL clones and it can block lysis of specific target cells by antigen-specific CTL's. Immobilized 145-2C11 can activate both normal T lymphocytes and cloned T cell lines. Under certain conditions, T cell activation by 145-2C11 may result in apoptotic cell death.

Applications

FC – Quality tested ^{1,10-12}
 IHC – Reported in literature ⁹
 IP – Reported in literature ^{1,8}
 WB – Reported in literature ⁸
 Block – Reported in literature ^{2,3}
 Depletion – Reported in literature ⁶
 Activ – Reported in literature ^{1,4,7}
 CMCD – Reported in literature ⁵

Working Dilutions

Flow Cytometry	FITC conjugate	$\leq 3 \mu\text{g}/10^6$ cells
	AF488 conjugate	$\leq 1 \mu\text{g}/10^6$ cells
	PE, APC, SPRD, and AF647 conjugates	$\leq 0.1 \mu\text{g}/10^6$ 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 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) and Spectral Red® (SPRD) conjugates are 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 Alexa Fluor® 488 (AF488) and Alexa Fluor® 647 (AF647) conjugates are supplied as 0.1 mg in 0.2 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. Leo O, Foo M, Sachs DH, Samelson LE, Bluestone JA. Identification of a monoclonal antibody specific for a murine T3 polypeptide. Proc Natl Acad Sci USA. 1987;84:1374-78. (Immunogen, IP, Activ, FC)
2. Bai Y, Liu J, Wang Y, Honig S, Qin L, Boros P, et al. L-selectin-dependent lymphoid occupancy is required to induce alloantigen-specific tolerance. J Immunol. 2002;168:1579-89. (Block)
3. Vossen AC, Tibbe GJ, Kroos MJ, van de Winkel JG, Benner R, Savelkoul HF. Fc receptor binding of anti-CD3 monoclonal antibodies is not essential for immunosuppression, but triggers cytokine-related side effects. Eur J Immunol. 1995;25:1492-6. (Block)
4. Bergese S, Pelletier R, Vallera D, Widmer M, Orosz C. Regulation of endothelial VCAM-1 expression in murine cardiac grafts. Roles for TNF and IL4. Am J Pathol. 1995;146:989-98. (Activ)
5. Wagner DH, Hagman J, Linsley PS, Hodsdon W, Freed JH, Newell MK. Rescue of thymocytes from glucocorticoid-induced cell death mediated by CD28/CTLA-4 costimulatory interactions with B7-1/B7-2. J Exp Med. 1996;184:1631-38. (CMCD)
6. Han WR, Murray-Segal LJ, Gershenson A, Zhang JG, Hodder AN, Pietersz GA, et al. Idarubicin-145-2C11-F(ab')₂ promotes peripheral tolerance and reduces chronic vascular disease in mouse cardiac allografts. Transpl Immunol. 1999;7:207-13. (Depletion)
7. Silverio JC, Pereira IR, Cipitelli M, Vinagre NF, Rodrigues MM, Gazzinelli RT, et al. CD8⁺ T-cells expressing interferon gamma or perforin play antagonistic roles in heart injury in experimental Trypanosoma cruzi-elicited cardiomyopathy. PLoS Pathog. 2012;8(4):e1002645. (Activ)
8. Molnár E, Swamy M, Holzer M, Beck-Garcia K, Worch R, Thiele C, et al. Cholesterol and sphingomyelin drive ligand-independent T-cell antigen receptor nanoclustering. J Biol Chem. 2012;287:42664-74. (IP, WB)
9. Al-Falahi Y, Sand KL, Knudsen E, Damaj BB, Rolin J, Maghazachi AA. Splenic natural killer cell activity in two models of experimental neurodegenerative diseases. J Cell Mol Med. 2009;13:2693-703. (IHC)
10. Conrad ML, Davis WC, Koop BF. TCR and CD3 antibody cross-reactivity in 44 species. Cytometry. 2007;71A:925-33. (FC)
11. Bauler LD, Duckett CS, O'Riordan MX. XIAP regulates cytosol-specific innate immunity to Listeria infection. PLoS Pathog. 2008;4(8):e1000142. (FC)
12. Grodeland G, Mjaaland S, Roux KH, Fredriksen AB, Bogen B. DNA vaccine that targets hemagglutinin to MHC class II molecules rapidly induces antibody-mediated protection against influenza. J Immunol. 2013;191:3221-31. (FC, Grizzly Bear Reactivity)

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