Datasheet for ABIN967568

anti-CD3 epsilon antibody

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Overview

Quantity:	0.1 mg
Target:	CD3 epsilon (CD3E)
Reactivity:	Mouse
Host:	Armenian Hamster
Clonality:	Monoclonal
Conjugate:	This CD3 epsilon antibody is un-conjugated
Application:	Flow Cytometry (FACS), Western Blotting (WB), Immunofluorescence (IF), Immunoprecipitation (IP), Immunohistochemistry (Frozen Sections) (IHC (fro)), Blocking Reagent (BR), Cytotoxicity Test (CyTox)

Product Details

Brand:	BD Pharmingen™
Immunogen:	H-2Kb specific cytotoxic T lymphocyte clone BM10-37
Clone:	145-2C11
Isotype:	IgG1 kappa
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Although hamster immunoglobulin isotypes have not been well defined, BD Biosciences Pharmingen has grouped Armenian and Syrian hamster IgG monoclonal antibodies according to their reactivity with a panel of mouse anti-hamster IgG mAbs. 4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide

Product Details

	compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	CD3 epsilon (CD3E)
Alternative Name:	CD3e (CD3E Products)
Background:	The 145-2C11 antibody reacts with the 25-kDa epsilon chain of the T-cell receptor-associated CD3 complex, which is expressed on thymocytes, mature T lymphocytes, and NK-T cells. The cytoplasmic domain of CD3e participates in the signal transduction events which activate several cellular biochemical pathways as a result of antigen recognition. Soluble 145-2C11 antibody can activate either unprimed (naive) or primed (memory/preactivated) T cells in vivo or in vitro, in the presence of Fc receptor-bearing accessory cells. In contrast, plate-bound 145-2C11 can activate T cells in the absence of accessory cells. Soluble 145-2C11 antibody has been reported to induce re-directed lysis of Fc receptor-bearing target cells by CTL clones and can also block lysis of specific target cells by antigen-specific CTL's. Under some conditions, T-cell activation by 145-2C11 antibody has been reported to result in apoptotic cell death. The 145-2C11 antibody does not cross-react with rat leukocytes and it has been reported that pre-incubation of thymus cell suspensions at 37°C for 2-4 hours prior to staining enhances the ability of anti-CD3epsilon and anti-alphabeta TCR mAbs to detect the T-cell receptor on immature thymocytes. This antibody is routinely tested by flow cytometric analysis. Synonyms: CD3epsilon chain
Pathways:	TCR Signaling, CXCR4-mediated Signaling Events, Ubiquitin Proteasome Pathway

Application Details

Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	0.5 mg/mL
Buffer:	Aqueous buffered solution containing ≤0.09 % sodium azide.

Handling

Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Store undiluted at 4° C.

Publications

Product cited in:

Martin, Lenardo: "Morphological, biochemical, and flow cytometric assays of apoptosis." in: **Current protocols in molecular biology / edited by Frederick M. Ausubel ... [et al.]**, Vol. Chapter 14, pp. Unit 14.13, (2008) (PubMed).

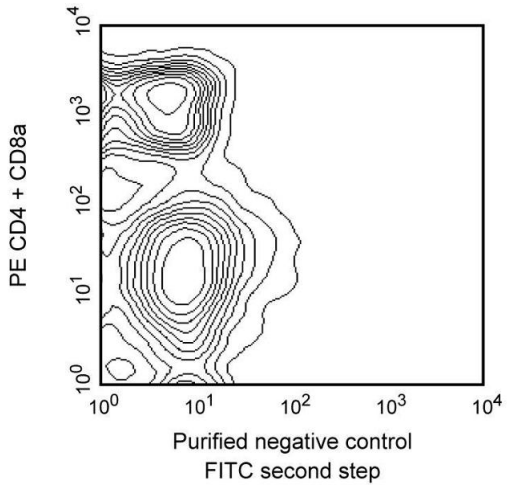
Kruisbeek, Shevach, Thornton: "Proliferative assays for T cell function." in: **Current protocols in immunology / edited by John E. Coligan ... [et al.]**, Vol. Chapter 3, pp. Unit 3.12, (2008) (PubMed).

Chai, Lechler: "Immobilized anti-CD3 mAb induces anergy in murine naive and memory CD4+ T cells in vitro." in: **International immunology**, Vol. 9, Issue 7, pp. 935-44, (1997) (PubMed).

Nakano, Yamazaki, Miyatake, Nozaki, Kikuchi, Saito: "Specific interaction of topoisomerase II beta and the CD3 epsilon chain of the T cell receptor complex." in: **The Journal of biological chemistry**, Vol. 271, Issue 11, pp. 6483-9, (1996) (PubMed).

Wagner, Hagman, Linsley, Hodsdon, Freed, Newell: "Rescue of thymocytes from glucocorticoid-induced cell death mediated by CD28/CTLA-4 costimulatory interactions with B7-1/B7-2." in: **The Journal of experimental medicine**, Vol. 184, Issue 5, pp. 1631-8, (1996) (PubMed).

There are more publications referencing this product on: Product page



Flow Cytometry

Image 1. CD3e expression in spleen and thymus. BALB/c splenocytes were simultaneously stained with PE-conjugated anti-mouse CD4 mAb RM4-5, PE-conjugated anti-mouse CD8a mAb 53-6.7 and either purified anti-mouse CD3e mAb 145-2C11 (third panel) or isotype control (first panel), followed by staining with a FITC-conjugated anti-hamster IgG mAb cocktail. BALB/c thymocytes were also stained with purified anti-mouse CD3e 145-2C11 or isotype control (second panel) followed by staining with a FITC-conjugated anti-hamster IgG mAb cocktail. Flow cytometry was performed on a BD FACScan™ flow cytometry system.

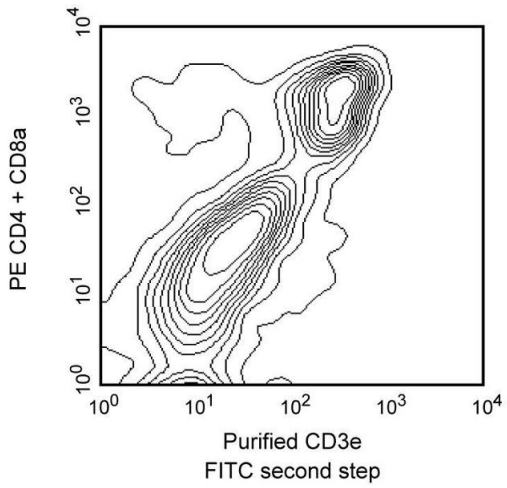


Image 2. Purified anti-mouse CD3e mAb 145-2C11

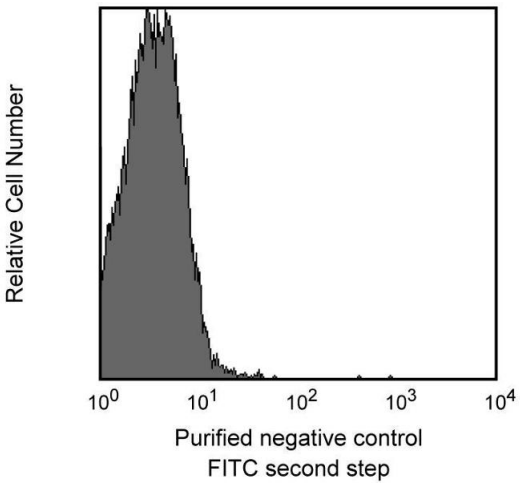


Image 3. BALB/c thymocytes were also stained with purified anti-mouse CD3e 145-2C11 or isotype control