

## Hamster Anti-Mouse CD3 $\epsilon$

Cat. No.	Form	Quantity
1530-01	Purified (UNLB) Antibody	0.5 mg
1530-02	Fluorescein (FITC) Conjugate	0.5 mg
1530-02S	Fluorescein (FITC) Conjugate	0.1 mg
1530-09	R-phycoerythrin (R-PE) Conjugate	0.1 mg
1530-09L	R-phycoerythrin (R-PE) Conjugate	0.2 mg
1530-11	Allophycocyanin (APC) Conjugate	0.1 mg
1530-13	*Spectral Red™ (SPRD) Conjugate	0.1 mg
1530-14	Low Endotoxin, Azide-Free (LE/AF)	0.5 mg
1530-28	Biotin-maleimide (BIMA) Conjugate	0.5 mg
1530-31	**Alexa Fluor 647 (AF647) Conjugate	0.1 mg

### DESCRIPTION

<b>Clone</b>	145-2C11
<b>Ig Isotype</b>	Armenian Hamster IgG $\kappa$
<b>Immunogen</b>	H-2K <sup>b</sup> -specific mouse cytotoxic T lymphocyte clone BM10-37
<b>Specificity</b>	Mouse CD3 $\epsilon$ (Mr 25 kDa)

CD3 $\epsilon$ , 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 25kD  $\epsilon$  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. <sup>1-6</sup>

### RESEARCH APPLICATIONS

- Identification and enumeration of CD3<sup>+</sup> cells by flow cytometry <sup>1,2</sup>
- Immunoprecipitation <sup>1</sup>
- Western blotting <sup>7</sup>
- *In vitro* depletion of CD3<sup>+</sup> cells <sup>2</sup>
- *In vitro* activation of T cells <sup>2-4</sup>
- Immunohistochemistry <sup>8</sup>

### CHARACTERIZATION

To insure acceptable performance, each batch of product is tested by flow cytometry to conform to the characteristics of a standard reference. Representative data are included in this product insert.

### WORKING DILUTIONS

<b>Flow Cytometry:</b>	Fluorescein conjugate	$\leq 3 \mu\text{g}/10^6$ cells
	Biotin conjugate	$\leq 1 \mu\text{g}/10^6$ cells
	PE, APC, SPRD, CY5, and AF647 conjugates	$\leq 0.1 \mu\text{g}/10^6$ cells

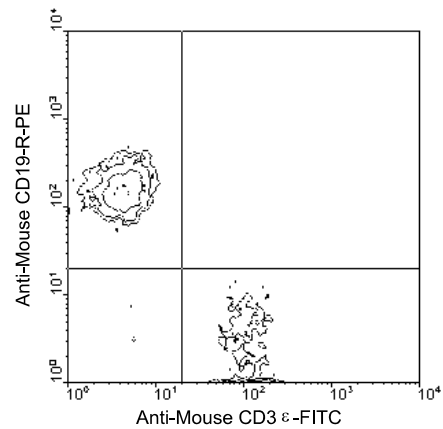
**Other Applications:** Since applications vary, you should determine the optimum working dilution of the product that is appropriate for your specific need.

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

## IMMUNOFLUORESCENT STAINING

**Product:** Hamster Anti-Mouse CD3 $\epsilon$ -FITC  
**Cat. No.:** 1530-02  
**Amount Used:** 1  $\mu$ g/10<sup>6</sup> cells

BALB/c spleen cells were double-stained with hamster anti-mouse CD3 $\epsilon$ -FITC and rat anti-mouse CD19-R-PE. Lymphocytes were gated and analyzed on a FACScan™ flow cytometer (BDIS, San Jose, CA).



## HANDLING AND STORAGE

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of 100 mM borate buffered saline, pH 8.2. *No preservatives or amine-containing buffer salts added.* Store at 2-8°C.
- The fluorescein (FITC) and Cyanine 5 (CY™5) conjugates are supplied as 0.5 mg or 0.1 mg in 1.0 mL of PBS/NaN<sub>3</sub>. Store at 2-8°C.
- The biotin (BIMA) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN<sub>3</sub>. Store at 2-8°C.
- The R-phycoerythrin (R-PE), allophycocyanin (APC), and Spectral Red™ (SPRD) conjugates are supplied as 0.1 mg in 1.0 mL or 0.2 mg in 2.0 mL of PBS/NaN<sub>3</sub> 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. **Aliquot and store at or below -20°C.**
- The Alexa Fluor 647 (AF647) conjugate is supplied as 0.1 mg in 0.2 mL of PBS/NaN<sub>3</sub>. Store at 2-8°C.
- Protect conjugated forms from light. Aliquot and freeze the low endotoxin, azide-free product at -20°C immediately upon receipt. Each reagent is stable for the period shown on the bottle label if stored as directed.

## WARNING

Reagents contain sodium azide. Sodium azide is very toxic if ingested or inhaled. Avoid contact with skin, eyes, or clothing. Wear eye or face protection when handling. If skin or eye contact occurs, wash with copious amounts of water. If ingested or inhaled, contact a physician immediately. Sodium azide yields toxic hydrazoic acid under acidic conditions. Dilute azide-containing compounds in running water before discarding to avoid accumulation of potentially explosive deposits in lead or copper plumbing.

## REFERENCES

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Spectral Red™ is a registered trademark of Southern Biotechnology Associates, Inc.

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