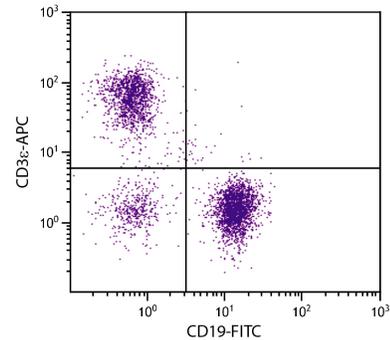




## Hamster Anti-Mouse CD3 $\epsilon$

| Cat. No. | Format                                  | Size   |
|----------|---|--------|
| 1531-01  | Purified (UNLB)                         | 0.5 mg |
| 1531-02  | Fluorescein (FITC)                      | 0.5 mg |
| 1531-08  | Biotin (BIOT)                           | 0.5 mg |
| 1531-09  | R-phycoerythrin (PE)                    | 0.1 mg |
| 1531-11  | Allophycocyanin (APC)                   | 0.1 mg |
| 1531-13  | Spectral Red <sup>®</sup> (SPRD)        | 0.1 mg |
| 1531-14  | Low Endotoxin, Azide-Free (LE/AF)       | 0.5 mg |
| 1531-15  | Cyanine 5 (CY5)                         | 0.1 mg |
| 1531-18  | Allophycocyanin-Cyanine 5.5 (APC/CY5.5) | 0.1 mg |



BALB/c mouse splenocytes were stained with Hamster Anti-Mouse CD3 $\epsilon$ -APC (SB Cat. No. 1531-11) and Rat Anti-Mouse CD19-FITC (SB Cat. No. 1575-02).

### Overview

|                          |  |
|--------------------------|--|
| <b>Clone</b>             | 500-A2   |
| <b>Isotype</b>           | Hamster (Syrian) IgG <sub>2</sub>                    |
| <b>Immunogen</b>         | Immune complexes isolated from C6VL-BS thymoma cells |
| <b>Specificity</b>       | Mouse CD3 $\epsilon$ ; Mr 25 kDa                     |
| <b>Alternate Name(s)</b> | CD3 epsilon  |

### Description

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). CD3 $\epsilon$  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. 500-A2 recognizes an epitope on the 25 kDa  $\epsilon$  chain of the CD3/TCR complex of mouse strains tested.

### Applications

FC – Quality tested <sup>1</sup>  
 IHC-FS – Reported in literature <sup>3</sup>  
 IP – Reported in literature <sup>1</sup>  
 Activ – Reported in literature <sup>1,2,4</sup>

### Working Dilutions

|   |                                   |                                   |
|---|-----------------------------------|-----------------------------------|
| <b>Flow Cytometry</b>   | FITC conjugate                    | $\leq 3 \mu\text{g}/10^6$ cells   |
|   | BIOT conjugate                    | $\leq 1 \mu\text{g}/10^6$ cells   |
|   | PE, APC, and APC/CY5.5 conjugates | $\leq 0.3 \mu\text{g}/10^6$ cells |
|   | SPRD and CY5 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 $\mu\text{l}$ |                                   |                                   |

**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.**

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## Handling and Storage

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- 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 in 1.0 mL of PBS/NaN<sub>3</sub>. Store at 2-8°C.
- The biotin (BIOT) 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 (PE) and allophycocyanin (APC) conjugates are supplied as 0.1 mg in 1.0 mL of PBS/NaN<sub>3</sub> and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The Spectral Red® (SPRD) and allophycocyanin-Cyanine 5.5 (APC/CY5.5) conjugates are supplied as 0.1 mg in 1.0 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. 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/NaN<sub>3</sub>. 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

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

## References

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1. Allison JP, Havran WL, Poenie M, Kimura J, DeGraffenreid L, Ajami M, et al. Expression and function of CD3 on murine thymocytes. In: Davis MM, Kappler J, editors. *The T-Cell Receptor*, UCLA Symposia, 73<sup>rd</sup> Edition. New York: Alan R. Liss; 1988. p.33-45. (Immunogen, FC, IP, Activ)
2. Swallow MM, Wallin JJ, Sha WC. B7h, a novel costimulatory homolog of B7.1 and B7.2, is induced by TNF $\alpha$ . *Immunity*. 1999;11:423-32. (Activ)
3. Hörnquist CE, Lu X, Rogers-Fani PM, Rudolph U, Shappell S, Birnbaumer L, et al. G $\alpha$ i2-deficient mice with colitis exhibit a local increase in memory CD4<sup>+</sup> T cells and proinflammatory Th1-type cytokines. *J Immunol*. 1997;158:1068-77. (IHC-FS)
4. Portoles P, Rojo J, Golby A, Bonneville M, Gromkowski S, Greenbaum L, et al. Monoclonal antibodies to murine CD3 $\epsilon$  define distinct epitopes one of which may interact with CD4 during T cell activation. *J Immunol*. 1989;142:4169-75. (Activ)

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