

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse CD3 $\epsilon$ . Binds to lymphocytes from all mouse strains tested and does not react with cells from rats, rabbits, miniature swine, or hamsters. <sup>1</sup> Binds to the CD3 $\epsilon$ -chain present on T-lymphocytes and thymocytes. Its binding has been characterized with respect to several other monoclonal anti-CD3 antibodies. <sup>3,4</sup>
<b>Source</b>	Monoclonal Hamster IgG Clone # 145-2C11
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	H-2K <sup>b</sup> -specific mouse cytotoxic T-lymphocyte
<b>Conjugate</b>	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
<b>Formulation</b>	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
<b>Flow Cytometry</b>	0.25-1 $\mu$ g/10 <sup>6</sup> cells	Mouse splenocytes

## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

## BACKGROUND

CD3 is composed of five different polypeptides ranging from 16-28 kDa that are associated with the T cell receptor (TCR) complex and serve as its signal transducing element. The CD3/TCR complex is expressed on T cells and thymocytes. Binding of immobilized anti-CD3 can cause T cell activation that leads to any of several consequences, depending on the conditions. Activation by anti-CD3 in the presence of IL 2 has been reported to induce cell death, apparently via apoptosis.<sup>4</sup> The antibody can be used to induce cytolytic activity against non-specific targets and also to block TCR-mediated cytolytic killing.<sup>1</sup> 145-2C11 has been used in a variety of studies concerned with allograft rejection and graft-vs host reaction in mice.<sup>6,7</sup>

### References:

1. Leo, O. *et al.* (1987) Proc. Natl. Acad. Sci. USA **84**:1374.
2. Portoles, P. *et al.* (1989) J. Immunol. **142**:4169.
3. Coulie, P.G. *et al.* (1991) Eur. J. Immunol. **21**:1703.
4. Ucker, D.S. J. Meyers and P.S. Obermiller. (1992) J. Immunol. **149**:1583.
5. Small, M. *et al.* (1994) J. Immunol. Meth. **167**:103.
6. Alegre, M.L. *et al.* (1991) J. Immunol. **146**:1184.
7. Hendrickson, M. *et al.* (1995) Transplantation **60**:828.

## PRODUCT SPECIFIC NOTICES

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