

**DESCRIPTION**

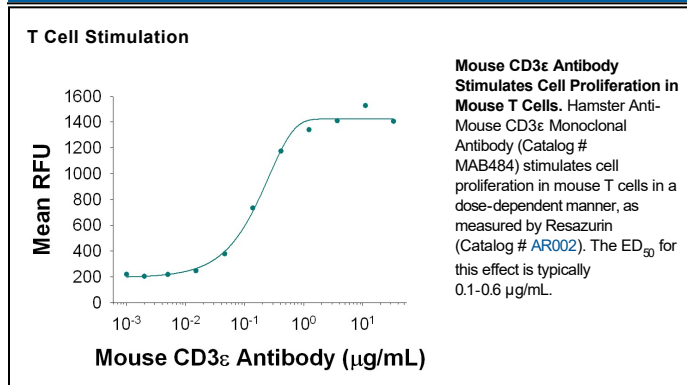
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse CD3 $\epsilon$ . Binds to lymphocytes from all mouse strains tested and does not react with cells from rats, rabbits, miniature swine, or hamsters. <sup>1</sup> Binds to the CD3 $\epsilon$ -chain present on T-lymphocytes and thymocytes. 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>Endotoxin Level</b>	<0.10 EU per 1 $\mu$ g of the antibody by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 $\mu$ m filtered solution in PBS.

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Flow Cytometry</b>	2.5 $\mu$ g/10 <sup>6</sup> cells	Mouse splenocytes
<b>T Cell Stimulation</b>	0.1-0.6 $\mu$ g/mL	See Below
<b>CyTOF-reported</b>	Fienberg, H.G. <i>et al.</i> (2012) <i>Cytometry</i> <b>81</b> : 467. Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
<b>Cell Depletion</b>	Small, M. <i>et al.</i> (1994) <i>J. Immunol. Meth.</i> <b>167</b> :103.	
<b>Immunoprecipitation</b>	Leo, O. <i>et al.</i> (1987) <i>Proc. Natl. Acad. Sci.</i> <b>84</b> :1374.	

**DATA**



**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</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.