

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse CD3 ϵ . Binds to lymphocytes from all mouse strains tested and does not react with cells from rats, rabbits, miniature swine, or hamsters. ¹ Binds to the CD3 ϵ -chain present on T-lymphocytes and thymocytes. Its binding has been characterized with respect to several other monoclonal anti-CD3 antibodies. ^{3,4}
Source	Monoclonal Hamster IgG Clone # 145-2C11
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	H-2K ^b -specific mouse cytotoxic T-lymphocyte
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	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
Flow Cytometry	0.25-1 μ g/10 ⁶ cells	Mouse splenocytes

PREPARATION AND STORAGE

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

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.⁴ The antibody can be used to induce cytolytic activity against non-specific targets and also to block TCR-mediated cytolytic killing.¹ 145-2C11 has been used in a variety of studies concerned with allograft rejection and graft-vs host reaction in mice.^{6,7}

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.

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