

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 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 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.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc. and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.