

DESCRIPTION

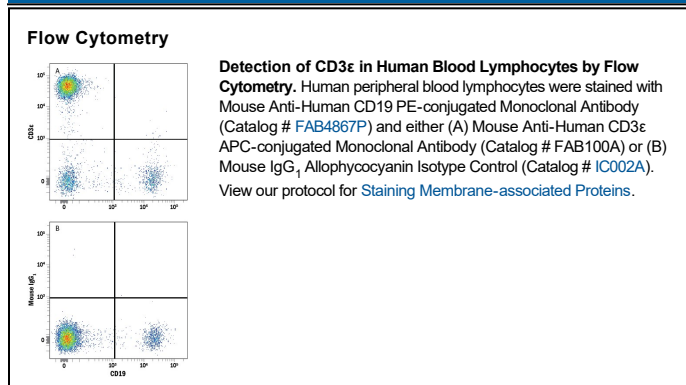
Species Reactivity	Human
Specificity	Recognizes the ϵ -chain of the CD3/T cell antigen receptor complex (McMichael, A.J. <i>et al.</i> (1987) <i>Leucocyte Typing III: White Cell Differentiation Antigens</i> , Oxford University Press, New York; Knapp, W. <i>et al.</i> (1989) <i>Leucocyte Typing IV: White Cell Differentiation Antigens</i> , Oxford University Press, New York; Schlossman, S. <i>et al.</i> (1995) <i>Leucocyte Typing V: White Cell Differentiation Antigens</i> , Oxford University Press, New York).
Source	Monoclonal Mouse IgG ₁ Clone # UCHT1
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human thymocytes (1)
Conjugate	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm
Formulation	Supplied 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	10 μ L/10 ⁶ cells	See Below

DATA



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.**

- 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

CD3 ϵ is a key signaling molecule that participates in the formation of the T Cell Receptor (TCR). The $\alpha\beta$ TCR is composed of six distinct subunits. There is an $\alpha\beta$ disulfide-linked heterodimer that recognizes antigen, and this is accompanied by four CD3 subunits that transduce an intracellular signal. CD3 ϵ forms a heterodimer with both CD3 γ and CD3 δ , creating two signaling complexes. These two heterodimers are supplemented by a CD3 $\zeta\zeta$ homodimer that lies in the center of the TCR complex, generating a fully-functional TCR (2).

References:

1. Beverly, P.C.L. and R.E. Callard (1981) *Eur. J. Immunol.* **11**:329.
2. Call, M.E. and K.W. Wucherpfennig (2005) *Annu. Rev. Immunol.* **23**: 101