

**DESCRIPTION**

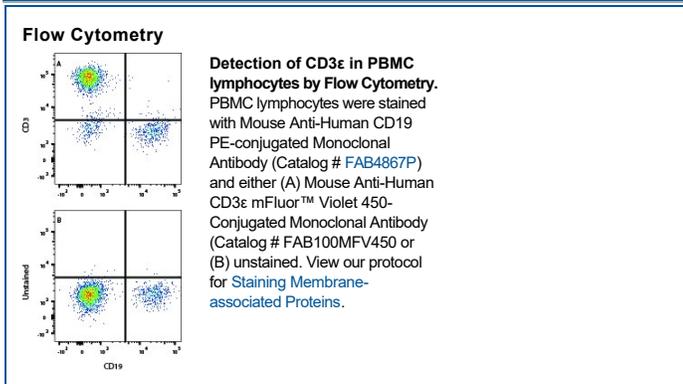
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Recognizes the $\epsilon$ -chain of the CD3/T cell antigen receptor complex.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # UCHT1
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Human thymocytes (1)
<b>Conjugate</b>	mFluor™ Violet 450 Excitation Wavelength: 406 nm Emission Wavelength: 445 nm
<b>Formulation</b>	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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Flow Cytometry</b>	5 $\mu$ L/10 <sup>6</sup> cells	PBMC lymphocytes

**DATA**



**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>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 $\epsilon$  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 $\epsilon$  forms a heterodimer with both CD3 $\gamma$  and CD3 $\delta$ , 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:**

- Beverly, P.C.L. and R.E. Callard (1981) Eur. J. Immunol. **11**:329.
- Call, M.E. and K.W. Wucherpfennig (2005) Annu. Rev. Immunol. **23**:101.
- McMichael, A.J. *et al.* (1987) Leucocyte Typing III: White Cell Differentiation Antigens, Oxford University Press, New York.
- Knapp, W. *et al.* (1989) Leucocyte Typing IV: White Cell Differentiation Antigens, Oxford University Press, New York.
- Schlossman, S. *et al.* (1995) Leucocyte Typing V: White Cell Differentiation Antigens, Oxford University Press, New York.

**PRODUCT SPECIFIC NOTICES**

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