

**DESCRIPTION**

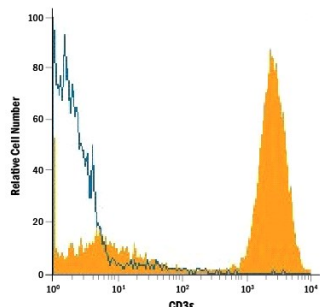
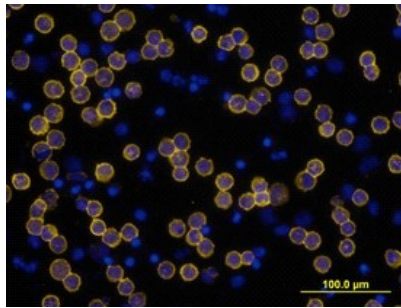
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Recognizes the $\epsilon$ -chain of the CD3/T cell antigen receptor complex (McMichael, A.J. <i>et al.</i> (1987) <i>Leucocyte Typing III: White Cell Differentiation Antigens</i> , Oxford University Press, New York; Knapp, W. <i>et al.</i> (1989) <i>Leucocyte 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).
<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>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 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>	0.25 $\mu$ g/10 <sup>6</sup> cells	See Below
<b>Immunocytochemistry</b>	8-25 $\mu$ g/mL	See Below
<b>CyTOF-reported</b>	Behbehani, G.K. <i>et al.</i> (2015) <i>Cancer Discov.</i> <b>5</b> : 988. Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
<b>Immunoprecipitation</b>	McMichael, A.J. <i>et al.</i> (1987) <i>Leucocyte Typing III: White Cell Differentiation Antigens</i> , Oxford University Press, New York	
<b>T Cell Stimulation</b>	This antibody can be used to activate T cells when immobilized at 1-10 $\mu$ g/mL (100 $\mu$ L/well).	

**DATA**

<p><b>Flow Cytometry</b></p>  <p><b>Detection of CD3<math>\epsilon</math> in Human Lymphocytes by Flow Cytometry.</b> Human peripheral blood lymphocytes were stained with Mouse Anti-Human CD3<math>\epsilon</math> Monoclonal Antibody (Catalog # MAB100, filled histogram) or isotype control antibody (Catalog # MAB002, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B).</p>	<p><b>Immunocytochemistry</b></p>  <p><b>CD3<math>\epsilon</math> in Human PBMCs.</b> CD3<math>\epsilon</math> was detected in immersion fixed human peripheral blood mononuclear cells (PBMCs) using Mouse Anti-Human CD3<math>\epsilon</math> Monoclonal Antibody (Catalog # MAB100) at 10 <math>\mu</math>g/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (yellow; Catalog # NL007) and counterstained with DAPI (blue). View our protocol for <a href="#">Fluorescent ICC Staining of Non-adherent Cells</a>.</p>
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**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>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <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 $\epsilon$  is one of at least four invariant proteins that associate with the variable antigen recognition chains of the T cell receptor and function in signal transduction.

**References:**

1. Beverly, P.C.L. and R.E. Callard (1981) *Eur. J. Immunol.* **11**:329.