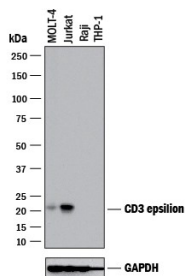
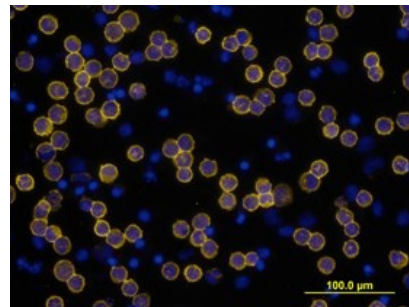
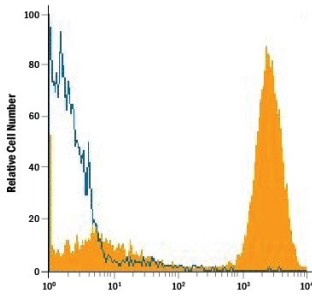


DESCRIPTION	
Species Reactivity	Human
Specificity	Recognizes the ε-chain of the CD3/T cell antigen receptor complex (McMichael, A.J. <i>et al.</i> (1987) Leucocyte Typing III: White Cell Differentiation Antigens, Oxford University Press, New York; Knapp, W. <i>et al.</i> (1989) Leucocyte Typing IV: White Cell Differentiation Antigens, Oxford University Press, New York; Schlossman, S. <i>et al.</i> (1995) Leucocyte Typing V: White Cell Differentiation Antigens, 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)
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm 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.		
	Recommended Concentration	Sample
Western Blot	2 µg/mL	MOLT-4 human acute lymphoblastic leukemia cell line and Jurkat human acute T cell leukemia cell line
Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
Immunocytochemistry	8-25 µg/mL	See Below
CyTOF-reported	Behbehani, G.K. <i>et al.</i> (2015) Cancer Discov. 5: 988. Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
Immunoprecipitation	McMichael, A.J. <i>et al.</i> (1987) Leucocyte Typing III: White Cell Differentiation Antigens, Oxford University Press, New York	
T Cell Stimulation	This antibody can be used to activate T cells when immobilized at 1-10 µg/mL (100 µL/well).	

DATA	
<p>Western Blot</p>  <p>Detection of Human CD3ε by Western Blot. Western blot shows lysates of MOLT-4 human acute lymphoblastic leukemia cell line, Jurkat human acute T cell leukemia cell line, Raji human Burkitt's lymphoma cell line (negative control), and THP-1 human acute monocytic leukemia cell line (negative control). PVDF membrane was probed with 2 µg/mL of Mouse Anti-Human CD3ε Monoclonal Antibody (Catalog # MAB100) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for CD3ε at approximately 21 kDa (as indicated). GAPDH (Catalog # MAB5718) is shown as a loading control. This experiment was conducted under reducing conditions and using Western Blot Buffer Group 1.</p>	<p>Immunocytochemistry</p>  <p>CD3ε in Human PBMCs. CD3ε was detected in immersion fixed human peripheral blood mononuclear cells (PBMCs) using Mouse Anti-Human CD3ε Monoclonal Antibody (Catalog # MAB100) at 10 µg/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 Fluorescent ICC Staining of Non-adherent Cells.</p>

<p>Flow Cytometry</p>  <p>Detection of CD3ε in Human Lymphocytes by Flow Cytometry. Human peripheral blood lymphocytes were stained with Mouse Anti-Human CD3ε 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>

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	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
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">• 12 months from date of receipt, -20 to -70 °C as supplied.• 1 month, 2 to 8 °C under sterile conditions after reconstitution.• 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

CD3 ϵ 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.