

Datasheet for ABIN6655178  
**anti-CD3 epsilon antibody (FITC)**



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2 Images

## Overview

Quantity:	500 µL
Target:	CD3 epsilon (CD3E)
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CD3 epsilon antibody is conjugated to FITC
Application:	Flow Cytometry (FACS), Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP)

## Product Details

Purpose:	CD3 Fluorescein Antibody
Immunogen:	Anti-CD3 Antibody (Monoclonal) was produced by repeated immunizations with CD3 antigen.
Clone:	UCHT1
Isotype:	IgG1 kappa
Cross-Reactivity (Details):	Reactivity is observed against human and chimpanzee.
Purification:	Fluorescein conjugated CD3 Monoclonal Antibody was purified from tissue culture supernatant via affinity chromatography and is directed against human CD3.
Sterility:	Sterile filtered
Labeling Ratio:	2-8

## Target Details

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Target: CD3 epsilon (CD3E)

Alternative Name: CD3E ([CD3E Products](#))

Background: Synonyms: T-cell surface glycoprotein CD3 epsilon chain, T-cell surface antigen T3/Leu-4 epsilon chain, CD3e

Background: The UCHT1 antibody is specific for human CD3e, also known as CD3 epsilon, a 20 kDa subunit of the T cell receptor complex, along with CD3 gamma and CD3 delta. These integral membrane protein chains assemble with additional chains of the T cell receptor (TCR), as well as CD3 zeta chain, to form the T cell receptor - CD3 complex. Together with co-receptors CD4 or CD8, the complex serves to recognize antigens bound to MHC molecules on antigen-presenting cells. These interactions promote T cell receptor signaling (T cell activation), inducing cell proliferation, differentiation, production of cytokines or activation-induced cell death. CD3 is differentially expressed during thymocyte-to-T cell development and on all mature T cells. The UCHT1 antibody is a widely used phenotypic marker for human T cells. In addition, binding/cross-linking of UCHT1 antibody to CD3e can induce cell activation. A recent publication of the crystal structure of a CD3e- antibody complex provides insight as to the action of commonly used agonist antibodies, as well as specific epitope-binding data for the human CD3 antibodies UCHT1 and OKT3. UCHT1 antibody reacts with both surface-expressed and intracellular CD3e protein, in contrast to an alternative human CD3 clone, HIT3a, which will stain only the extracellular (membrane-expressed) CD3e protein. Also, the UCHT1 antibody is reported to be cross-reactive with chimpanzee and has been used for phenotypic analysis of expression by flow cytometry, however the antibody is reported to be unsuitable for induction of T cell activation in this species.

Gene Name: CD3E

Gene ID: 916

NCBI Accession: [NP\\_000724](#)

UniProt: [P07766](#)

Pathways: [TCR Signaling](#), [CXCR4-mediated Signaling Events](#), [Ubiquitin Proteasome Pathway](#)

## Application Details

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Application Notes: Immunoprecipitation\_Dilution: User Optimized  
Immunohistochemistry\_Dilution: User Optimized  
Flow\_Cytometry\_Dilution: 5µL/test/1x10e5 to 1x10e8 cells  
Western\_Blot\_Dilution: User Optimized

## Application Details

**Comment:** Anti-CD3 has been tested in Flow Cytometry and is useful for Immunoprecipitation and Immunohistochemistry. Researchers should determine optimal titers for applications that are not stated.

**Restrictions:** For Research Use only

## Handling

**Format:** Liquid

**Buffer:** Buffer: 0.01 M Sodium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Stabilizer: 0.1 % Gelatin

Preservative: 0.09 % (w/v) Sodium Azide

**Preservative:** Sodium azide

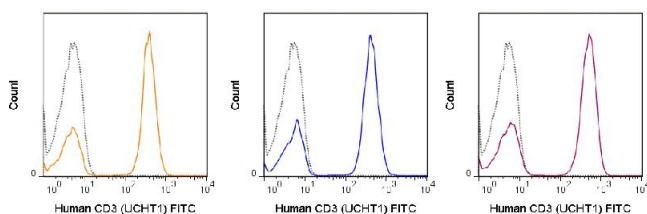
**Precaution of Use:** This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

**Storage:** 4 °C

**Storage Comment:** Store vial at 4° C prior to opening. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use. DO NOT FREEZE. This product is light sensitive.

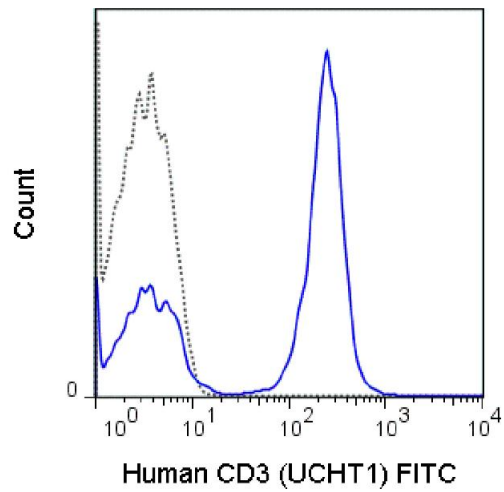
**Expiry Date:** 6 months

## Images



### Flow Cytometry

**Image 1.** Flow Cytometry of Mouse anti-CD3 Fluorescein Conjugated Monoclonal Antibody. Cells: human peripheral blood lymphocytes. Stimulation: none. Antibody: (GRAY) 1 ug FITC Mouse IgG1 isotype control; (ORANGE) Fluorescein Anti-CD3 mouse antibody; (BLUE) Fluorescein Anti-CD3 mouse antibody; (RED) Fluorescein Anti-CD3 mouse antibody using 5 ul (1 ug).



### Flow Cytometry

**Image 2.** Flow Cytometry - Mouse anti-CD3 FITC Flow Cytometry of Mouse anti-CD3 Fluorescein Conjugated Monoclonal Antibody. Cells: human peripheral blood lymphocytes. Stimulation: none. Antibody: (GRAY) 1 ug FITC Mouse IgG1 isotype control; (BLUE) Fluorescein Anti-CD3 mouse antibody using 5 ul (1 ug).