

Datasheet for ABIN2749057  
**anti-CD3 antibody (Biotin)**[Go to Product page](#)

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## Overview

Quantity:	0.1 mg
Target:	CD3
Reactivity:	Human, Non-Human Primate
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CD3 antibody is conjugated to Biotin
Application:	Flow Cytometry (FACS), Immunoprecipitation (IP), Immunohistochemistry (Frozen Sections) (IHC (fro))

## Product Details

Immunogen:	human thymocytes followed by Sezary T cells
Clone:	UCHT1
Isotype:	IgG1
Specificity:	The antibody UCHT1 recognizes an extracellular epitope on CD3 antigen of the TCR/CD3 complex on mature human T cells. The UCHT1 antibody reacts with the epsilon chain of the CD3 complex.
Cross-Reactivity (Details):	Human, Non-Human Primates
Purification:	Purified antibody is conjugated with biotin LC-NHS ester under optimum conditions and unconjugated antibody and free biotin are removed by size-exclusion chromatography.

## Target Details

Target:	CD3
Alternative Name:	CD3 ( <a href="#">CD3 Products</a> )
Background:	<p>CD3 antigen, epsilon polypeptide, CD3 complex is crucial in transducing antigen-recognition signals into the cytoplasm of T cells and in regulating the cell surface expression of the TCR complex. T cell activation through the antigen receptor (TCR) involves the cytoplasmic tails of the CD3 subunits CD3 gamma, CD3 delta, CD3 epsilon and CD3 zeta. These CD3 subunits are structurally related members of the immunoglobulins super family encoded by closely linked genes on human chromosome 11. The CD3 components have long cytoplasmic tails that associate with cytoplasmic signal transduction molecules. This association is mediated at least in part by a double tyrosine-based motif present in a single copy in the CD3 subunits. CD3 may play a role in TCR-induced growth arrest, cell survival and proliferation. The CD3 antigen is present on 68-82 % of normal peripheral blood lymphocytes, 65-85 % of thymocytes and Purkinje cells in the cerebellum. It is never expressed on B or NK cells. Decreased percentages of T lymphocytes may be observed in some autoimmune diseases., CD3E, T3E, TCRE</p>
Gene ID:	916
UniProt:	<a href="#">P07766</a>
Pathways:	<a href="#">TCR Signaling</a> , <a href="#">Ubiquitin Proteasome Pathway</a>

## Application Details

Application Notes:	Flow cytometry: Extracellular and intracellular staining, recommended dilution: 1-12 µg/mL.
Comment:	The purified antibody is conjugated with Biotin-LC-NHS under optimum conditions. The reagent is free of unconjugated biotin.
Restrictions:	For Research Use only

## Handling

Concentration:	1 mg/mL
Buffer:	Phosphate buffered saline (PBS), pH 7.4, 15 mM 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

## Handling

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Storage Comment: Store at 2-8°C. Do not freeze.

## Publications

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Product cited in: Rieux-Laucat, Hivroz, Lim, Mateo, Pellier, Selz, Fischer, Le Deist: "Inherited and somatic CD3zeta mutations in a patient with T-cell deficiency." in: **The New England journal of medicine**, Vol. 354, Issue 18, pp. 1913-21, (2006) ([PubMed](#)).

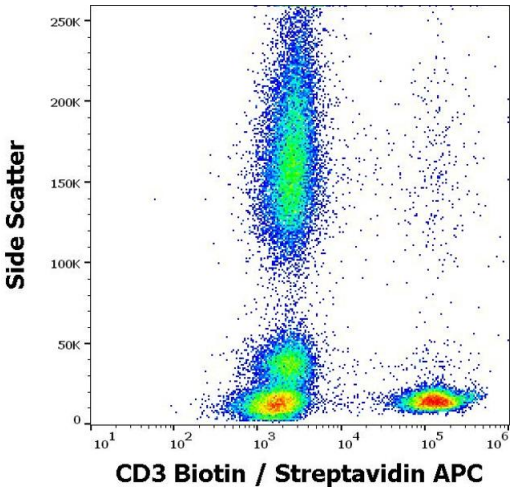
Demedts, Brusselle, Vermaelen, Pauwels: "Identification and characterization of human pulmonary dendritic cells." in: **American journal of respiratory cell and molecular biology**, Vol. 32, Issue 3, pp. 177-84, (2005) ([PubMed](#)).

Arnett, Harrison, Wiley: "Crystal structure of a human CD3-epsilon/delta dimer in complex with a UCHT1 single-chain antibody fragment." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 101, Issue 46, pp. 16268-73, (2004) ([PubMed](#)).

Torres, Alcover, Zapata, Arnaud, Pacheco, Martín-Fernández, Villasevil, Sanal, Regueiro: "TCR dynamics in human mature T lymphocytes lacking CD3 gamma." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 170, Issue 12, pp. 5947-55, (2003) ([PubMed](#)).

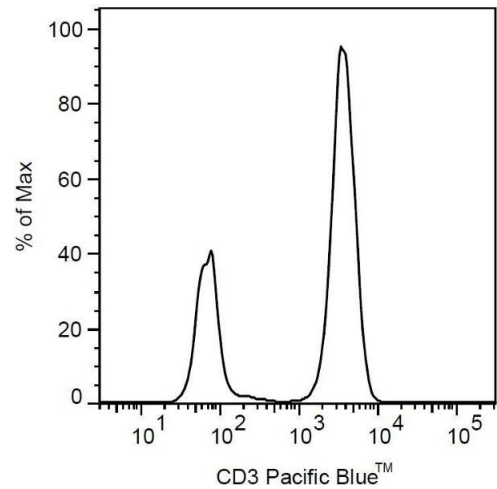
le Gouvello, Manceau, Sobel: "Serine 16 of stathmin as a cytosolic target for Ca<sup>2+</sup>/calmodulin-dependent kinase II after CD2 triggering of human T lymphocytes." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 161, Issue 3, pp. 1113-22, (1998) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)



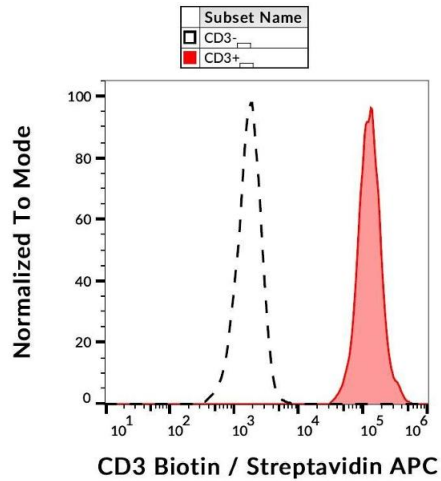
Flow Cytometry

**Image 1.** Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human CD3 (UCHT1) biotin antibody (concentration in sample 0,3 µg/mL) streptavidin APC.



Flow Cytometry

**Image 2.** Surface staining of human peripheral blood cells with anti-human CD3 (UCHT1) Pacific Blue™. Cells in the lymphocyte gate were used for analysis.



Flow Cytometry

**Image 3.** Surface staining of human peripheral blood cells with anti-human CD3 (UCHT1) biotin / streptavidin-APC.

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN2749057.