

Datasheet for ABIN457409

anti-CD3 antibody



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Overview

Quantity:	100 µg
Target:	CD3
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CD3 antibody is un-conjugated
Application:	Flow Cytometry (FACS), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Purpose:	Anti-Hu CD3 Purified
Immunogen:	human T cells
Clone:	OKT3
Isotype:	IgG2a
Specificity:	The mouse monoclonal antibody OKT3 recognizes an extracellular epitope on CD3 antigen of the TCR/CD3 complex on mature human T cells. This antibody, also known as Orthoclone OKT3 or Muromonab-CD3, has been extensively used as a drug for therapy of acute, glucocorticoid resistant rejection of allogenic renal, heart and liver transplants. It has also been investigated for use in treating T-cell acute lymphoblastic leukemia.
Cross-Reactivity (Details):	Human
Purification:	Purified by protein-A affinity chromatography.

Product Details

Purity: > 95 % (by SDS-PAGE)

Target Details

Target: CD3

Alternative Name: CD3 ([CD3 Products](#))

Background: 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

Gene ID: 916

UniProt: [P07766](#)

Pathways: [TCR Signaling](#), [Ubiquitin Proteasome Pathway](#)

Application Details

Application Notes: Flow cytometry: Recommended dilution: 1 µg/mL.

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.

Handling

Handling Advice:	Do not freeze.
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Do not freeze.

Publications

Product cited in: Li, Wong, Yi, Wong, Zhou, Liu et al.: "Matrine induces cell anergy in human Jurkat T cells through modulation of mitogen-activated protein kinases and nuclear factor of activated T-cells signaling with concomitant up-regulation of ..." in: **Biological & pharmaceutical bulletin**, Vol. 33, Issue 1, pp. 40-6, (2010) ([PubMed](#)).

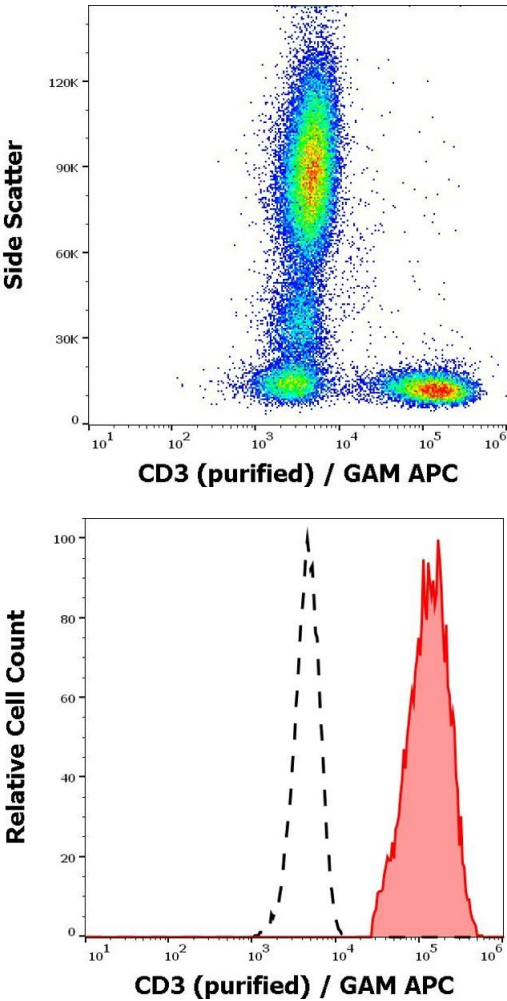
Quintana, Schwindling, Wenning, Becherer, Rettig, Schwarz, Hoth: "T cell activation requires mitochondrial translocation to the immunological synapse." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 104, Issue 36, pp. 14418-23, (2007) ([PubMed](#)).

Trushin, Bren, Asin, Pennington, Paya, Badley: "Human immunodeficiency virus reactivation by phorbol esters or T-cell receptor ligation requires both PKC α and PKC θ ." in: **Journal of virology**, Vol. 79, Issue 15, pp. 9821-30, (2005) ([PubMed](#)).

Undale, van den Elsen, Celis: "Antigen-independent acquisition of MHC class II molecules by human T lymphocytes." in: **International immunology**, Vol. 16, Issue 10, pp. 1523-33, (2004) ([PubMed](#)).

Lang, Handgretinger, Niethammer, Schlegel, Schumm, Greil, Bader, Engel, Scheel-Walter, Eyrich, Klingebiel: "Transplantation of highly purified CD34+ progenitor cells from unrelated donors in pediatric leukemia." in: **Blood**, Vol. 101, Issue 4, pp. 1630-6, (2003) ([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 (OKT3) purified antibody (concentration in sample 1 µg/mL) GAM APC.

Flow Cytometry

Image 2. Separation of human CD3 positive lymphocytes (red-filled) from neutrophil granulocytes (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using anti-human CD3 (OKT3) purified antibody (concentration in sample 1 µg/mL) GAM APC.