Datasheet for ABIN2749026

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), Immunoprecipitation (IP), Functional Studies (Func)

Product Details

Purpose:	Anti-Hu CD3 Purified Low Endotoxin
Immunogen:	Human peripheral blood lymphocytes.
Clone:	MEM-92
Isotype:	IgM
Specificity:	The antibody MEM-92 reacts with an extracellular epitope on epsilon chain of human CD3 complex, a part of a bigger multisubunit complex of the T cell receptor (CD3/TCR) expressed on peripheral blood T lymphocytes and mature thymocytes.
Cross-Reactivity (Details):	Human
Purification:	Purified by sequential steps of physicochemical fractionation (differential precipitation and solid-phase chromatography methods).
Purity:	> 95 % (by SDS-PAGE)

Product Details

Endotoxin Level:	Endotoxin level is less than 0.01 EU/μg of the protein, as determined by the LAL test.

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 Purkynje 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:	Functional application: The antibody MEM-92 in solution induces early responses of T cell activation (tyrosine phosphorylation, calcium elevation, Erk activation and expression of activation antigens), but it is unable to induce T cell proliferation. Flow cytometry: Recommended dilution: 3-10 μg/mL.
Restrictions:	For Research Use only

Handling

Concentration:	1 mg/mL
Buffer:	Phosphate buffered saline (PBS), pH 7.4
Storage:	4 °C

Handling

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

Publications

Product cited in:

Meraner, Horejsí, Wolpl, Fischer, Stingl, Maurer: "Dendritic cells sensitize TCRs through self-MHC-mediated Src family kinase activation." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 178, Issue 4, pp. 2262-71, (2007) (PubMed).

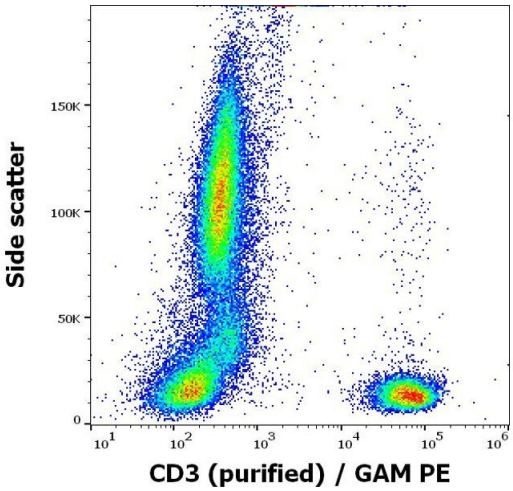
Batista, Millán, Mittelbrunn, Sánchez-Madrid, Alonso: "Recruitment of transferrin receptor to immunological synapse in response to TCR engagement." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 172, Issue 11, pp. 6709-14, (2004) (PubMed).

Brdicková, Brdicka, Angelisová, Horváth, Spicka, Hilgert, Paces, Simeoni, Kliche, Merten, Schraven, Horejsí: "LIME: a new membrane Raft-associated adaptor protein involved in CD4 and CD8 coreceptor signaling." in: **The Journal of experimental medicine**, Vol. 198, Issue 10, pp. 1453-62, (2003) (PubMed).

Brdicka, Imrich, Angelisová, Brdicková, Horváth, Spicka, Hilgert, Lusková, Dráber, Novák, Engels, Wienands, Simeoni, Osterreicher, Aguado, Malissen, Schraven, Horejsí: "Non-T cell activation linker (NTAL): a transmembrane adaptor protein involved in immunoreceptor signaling." in: **The Journal of experimental medicine**, Vol. 196, Issue 12, pp. 1617-26, (2002) (PubMed).

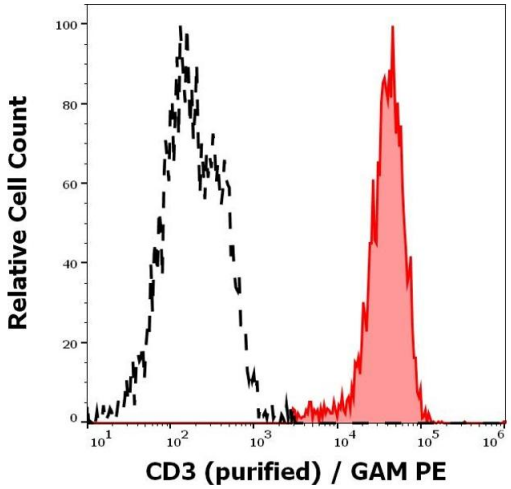
Stulnig, Berger, Sigmund, Stockinger, Horejsí, Waldhäusl: "Signal transduction via glycosyl phosphatidylinositol-anchored proteins in T cells is inhibited by lowering cellular cholesterol." in: **The Journal of biological chemistry**, Vol. 272, Issue 31, pp. 19242-7, (1997) (PubMed).

There are more publications referencing this product on: Product page



Flow Cytometry

Image 1. Flow cytometry surface staining pattern of human peripheral blood stained using anti-human CD3 (MEM-92) purified antibody (concentration in sample 5 µg/mL, GAM PE).



Flow Cytometry

Image 2. Separation of human CD3 positive lymphocytes (red-filled) from human CD3 negative cells (black-dashed) in flow cytometry analysis (surface staining) of human peripheral blood stained using anti-human CD3 (MEM-92) purified antibody (concentration in sample 5 µg/mL, GAM PE).