Datasheet for ABIN94129

anti-CD45 antibody (FITC)

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Overview

Quantity:	100 tests
Target:	CD45 (PTPRC)
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CD45 antibody is conjugated to FITC
Application:	Flow Cytometry (FACS)

Product Details

Purpose:	Anti-Hu CD45 FITC
Immunogen:	Human thymocytes and T lymphocytes.
Clone:	MEM-28
Isotype:	IgG1
Specificity:	The antibody MEM-28 reacts with an extracellular epitope on all alternative forms of human CD45 antigen (Leukocyte Common Antigen), a 180-220 kDa single chain type I transmembrane protein expressed at high level on all cells of hematopoietic origin, except erythrocytes and platelets.
No Cross-Reactivity:	Horse
Cross-Reactivity (Details):	Human
Purification:	Purified antibody is conjugated with fluorescein isothiocyanate (FITC) under optimum

Product Details

	conditions and unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography.

Target Details

Target:	CD45 (PTPRC)
Alternative Name:	CD45 (PTPRC Products)
Background:	Protein tyrosine phosphatase receptor type C,CD45 (LCA, leukocyte common antigen) is a receptor-type protein tyrosine phosphatase ubiquitously expressed in all nucleated hematopoietic cells, comprising approximately 10 % of all surface proteins in lymphocytes. CD45 glycoprotein is crucial in lymphocyte development and antigen signaling, serving as an important regulator of Src-family kinases. CD45 protein exists as multiple isoforms as a result of alternative splicing, these isoforms differ in their extracellular domains, whereas they share identical transmembrane and cytoplasmic domains. These isoforms differ in their ability to translocate into the glycosphingolipid-enriched membrane domains and their expression depends on cell type and physiological state of the cell. Besides the role in immunoreceptor signaling, CD45 is important in promoting cell survival by modulating integrin-mediated signal transduction pathway and is also involved in DNA fragmentation during apoptosis.,LCA, T200, LY5, B220, GP180, TPC
Gene ID:	5788
UniProt:	P08575
Pathways:	TCR Signaling, Regulation of Leukocyte Mediated Immunity, Positive Regulation of Immune Effector Process, Production of Molecular Mediator of Immune Response, CXCR4-mediated Signaling Events, BCR Signaling

Application Details

Application Notes:	Flow cytometry: The reagent is designed for analysis of human blood cells using 20 µL reagent / 100 µL of whole blood or 10^6 cells in a suspension. The content of a vial (2 ml) is sufficient for 100 tests.
Restrictions:	For Research Use only

Handling

Reconstitution:	No reconstitution is necessary.

Handling

Buffer:	Stabilizing 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 Advice:	**Do not freeze.** Avoid prolonged exposure to light.
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Protect from prolonged exposure to light. Do not freeze.

Publications

Product cited in:

Heneberg, Riegerová, Kučera: "Pimecrolimus Is a Potent Inhibitor of Allergic Reactions to Hymenopteran Venom Extracts and Birch Pollen Allergen In Vitro." in: **PLoS ONE**, Vol. 10, Issue 11, pp. e0142953, (2015) (PubMed).

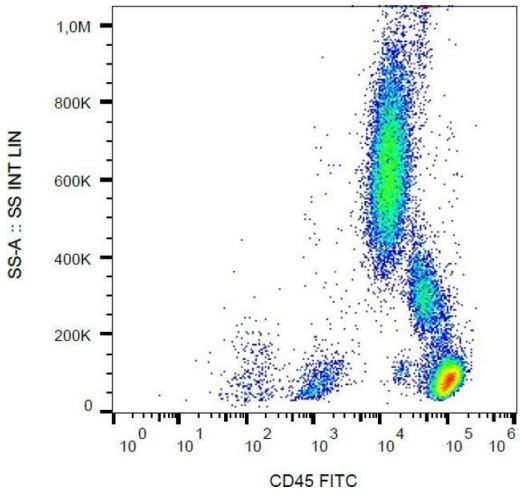
McCormack, Muji?, Osdal, Bruserud, Gjertsen: "Multiplexed mAbs: a new strategy in preclinical time-domain imaging of acute myeloid leukemia." in: **Blood**, Vol. 121, Issue 7, pp. e34-42, (2013) (PubMed).

Majer, Vlaskova, Krol, Kalina, Kubanek, Stolnaya, Dvorakova, Elleder, Sikora: "Danon disease: a focus on processing of the novel LAMP2 mutation and comments on the beneficial use of peripheral white blood cells in the diagnosis of LAMP2 deficiency." in: **Gene**, Vol. 498, Issue 2, pp. 183-95, (2012) (PubMed).

Koethe, Zander, Köster, Annan, Ebenfelt, Spencer, Bemark: "Pivotal advance: CD45RB glycosylation is specifically regulated during human peripheral B cell differentiation." in: **Journal of leukocyte biology**, Vol. 90, Issue 1, pp. 5-19, (2011) (PubMed).

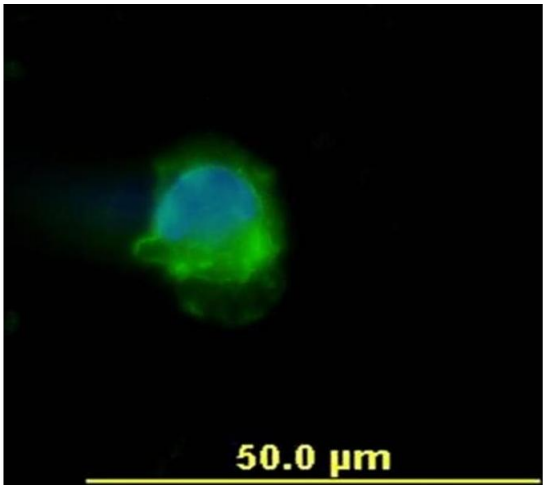
Drbal, Moertelmaier, Holzhauser, Muhammad, Fuertbauer, Howorka, Hinterberger, Stockinger, Schütz: "Single-molecule microscopy reveals heterogeneous dynamics of lipid raft components upon TCR engagement." in: **International immunology**, Vol. 19, Issue 5, pp. 675-84, (2007) (PubMed).

There are more publications referencing this product on: Product page



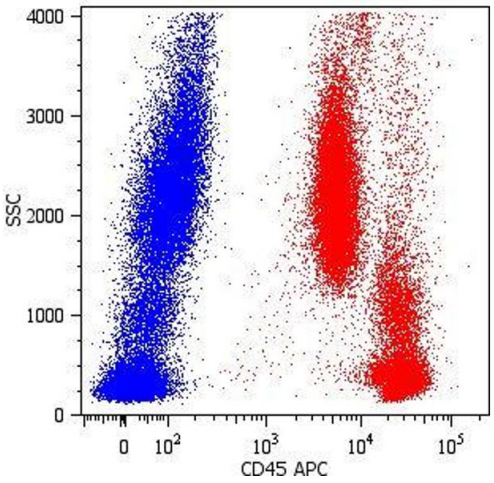
Flow Cytometry

Image 1. Flow cytometry analysis (surface staining) of human peripheral blood cells with anti-human CD45 (MEM-28) FITC.



Immunocytochemistry

Image 2. Immunocytochemistry staining of human peripheral blood mononuclear cell using anti-human CD45 (, green). DNA visualized by DAPI (blue)



Flow Cytometry

Image 3. Surface staining of human peripheral blood cells with anti-human CD45 (MEM-28) APC.