



Datasheet for ABIN192139
anti-CD53 antibody (PE)



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Overview

Quantity:	100 tests
Target:	CD53
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CD53 antibody is conjugated to PE
Application:	Flow Cytometry (FACS)

Product Details

Immunogen:	Leukocytes of patient suffering from a LGL-type leukemia.
Clone:	MEM-53
Isotype:	IgG1
Specificity:	The antibody MEM-53 reacts with an extracellular epitope of CD53, a 32-40 kDa tetraspanin family glycoprotein exclusively expressed on leukocytes, it is not present on platelets, red blood cells and non-hematopoietic cells. The antibody MEM-53 reacts also with deglycosylated molecule (molecular weight of the antigen is reduced by 15 kDa using endoglycosidase F).
Cross-Reactivity (Details):	Human
Purification:	Purified antibody is conjugated with R-phycoerythrin (PE) under optimum conditions. Unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography.

Target Details

Target:	CD53
Alternative Name:	CD53 (CD53 Products)
Background:	CD53 Molecule,CD53 is a tetraspanin family transmembrane glycoprotein expressed in the lymphoid-myeloid lineage. This molecule has been reported to form complexes with other leukocyte surface proteins such as CD2, CD19, CD21, MHC II, VLA-4 or tetraspanins CD37, CD81 and CD82, thus probably modulating various signaling processes. CD53 is involved in radioresistance of tumour cells and its triggering has anti-apoptotic effect. In thymus, CD53 is up-regulated in response to positive selection signals during T cell development, and is strongly expressed upon macrophage exposure to bacterial lipopolysaccharide, whereas stimulation of neutrophils results in down-regulation of CD53 expression.,Tetraspanin-25, MOX44, TSPAN25
Gene ID:	963
UniProt:	P19397

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.
Comment:	The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
Restrictions:	For Research Use only

Handling

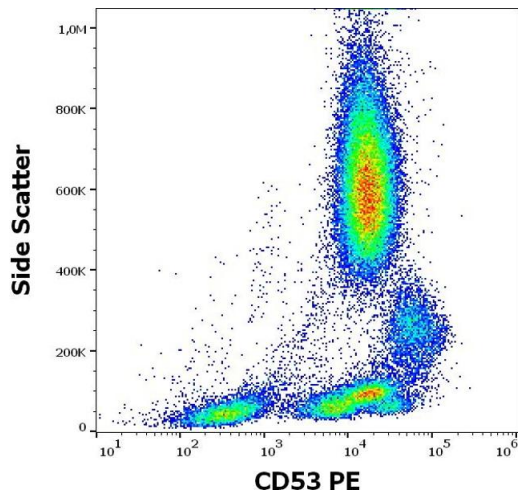
Reconstitution:	No reconstitution is necessary.
Buffer:	Stabilizing phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Do not freeze. Avoid prolonged exposure to light.
Storage:	4 °C

Handling

Storage Comment: Store at 2-8°C. Protect from prolonged exposure to light. Do not freeze.

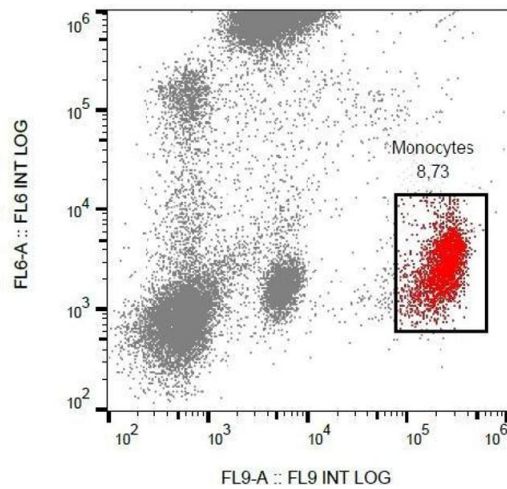
Publications

- Product cited in:
- Schatzmaier, Supper, Göschl, Zwirzitz, Eckerstorfer, Ellmeier, Huppa, Stockinger: "Rapid multiplex analysis of lipid raft components with single-cell resolution." in: **Science signaling**, Vol. 8, Issue 395, pp. rs11, (2015) ([PubMed](#)).
- Szöllósi, Horejsi, Bene, Angelisová, Damjanovich: "Supramolecular complexes of MHC class I, MHC class II, CD20, and tetraspan molecules (CD53, CD81, and CD82) at the surface of a B cell line JY." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 157, Issue 7, pp. 2939-46, (1996) ([PubMed](#)).
- Olweus, Lund-Johansen, Terstappen: "CD64/Fc gamma RI is a granulo-monocytic lineage marker on CD34+ hematopoietic progenitor cells." in: **Blood**, Vol. 85, Issue 9, pp. 2402-13, (1995) ([PubMed](#)).
- Rasmussen, Blomhoff, Stokke, Horejsi, Smeland: "Cross-linking of CD53 promotes activation of resting human B lymphocytes." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 153, Issue 11, pp. 4997-5007, (1994) ([PubMed](#)).
- Bazil, Stefanová, Hilgert, Kristofová, Van?k, Bukovský, Horejsi: "Monoclonal antibodies against human leucocyte antigens. III. Antibodies against CD45R, CD6, CD44 and two newly described broadly expressed glycoproteins MEM-53 and MEM-102." in: **Folia biologica**, Vol. 35, Issue 5, pp. 289-97, (1990) ([PubMed](#)).



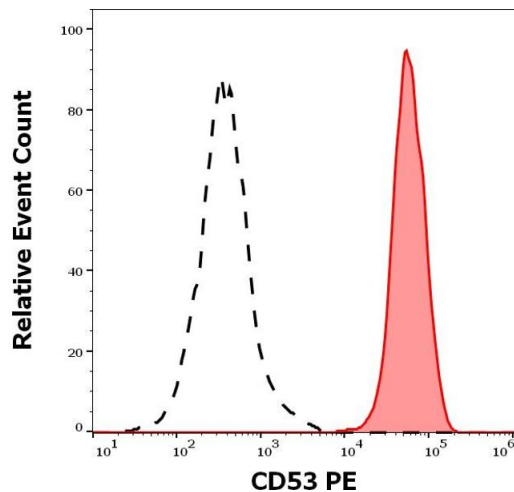
Flow Cytometry

Image 1. Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human CD53 (MEM-53) PE antibody (20 μ L reagent / 100 μ L of peripheral whole blood).



Flow Cytometry

Image 2. Surface staining of CD53 in human peripheral blood cells with anti-CD53 (MEM-53) PE.



Flow Cytometry

Image 3. Separation of human monocytes (red-filled) from CD45 negative blood debris (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using anti-human CD53 (MEM-53) PE antibody (20 μ L reagent / 100 μ L of peripheral whole blood).