Datasheet for ABIN94241

anti-CD80 antibody (Extracellular Domain) (APC)

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Overview

Quantity:	100 tests
Target:	CD80
Binding Specificity:	Extracellular Domain
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CD80 antibody is conjugated to APC
Application:	Flow Cytometry (FACS)

Product Details

Immunogen:	Extracellular domain of human CD80 fused to human IgG1(Fc)
Clone:	MEM-233
Isotype:	IgG1
Specificity:	The antibody MEM-233 reacts with an extracellular epitope of CD80 (B7-1), a 60 kDa single chain type I glycoprotein of immunoglobulin supergene family, expressed on professional antigen-presenting cells, such as dendritic cells, macrophages or activated B lymphocytes.
Cross-Reactivity (Details):	Human
Purification:	Purified antibody is conjugated with activated allophycocyanin (APC) under optimum conditions and unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography.

Target Details

Target:	CD80
Alternative Name:	CD80 (CD80 Products)
Background:	CD80 Molecule,CD80 (B7-1) and CD86 (B7-2) are ligands of T cell critical costimulatory molecule CD28 and of an inhibitory receptor CTLA-4 (CD152). The both B7 Molecules are expressed on professional antigen-presenting cells and are essential for T cell activation, the both molecules can also substitute for each other in this process. The question what are the differences in CD80 and CD86 competency has not been fully elucidated yet, there are still conflicts in results about their respective roles in initiation or sustaining of the T cell immune response.,B7-1, BB1
Gene ID:	941
UniProt:	P33681
Pathways:	TCR Signaling, Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Positive Regulation of Immune Effector Process, Cancer Immune Checkpoints

Application Details

Application Notes:	Flow cytometry: The reagent is designed for analysis of human blood cells using 10 µL reagent / 100 µL of whole blood or 10^6 cells in a suspension. The content of a vial (1 ml) is sufficient for 100 tests.
Comment:	The purified antibody is conjugated with cross-linked Allophycocyanin (APC) 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.**

Handling

	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:

Silk, Leishman, Nishimoto, Reddy, Fairchild: "Rapamycin conditioning of dendritic cells differentiated from human ES cells promotes a tolerogenic phenotype." in: **Journal of biomedicine & biotechnology**, Vol. 2012, pp. 172420, (2012) (PubMed).

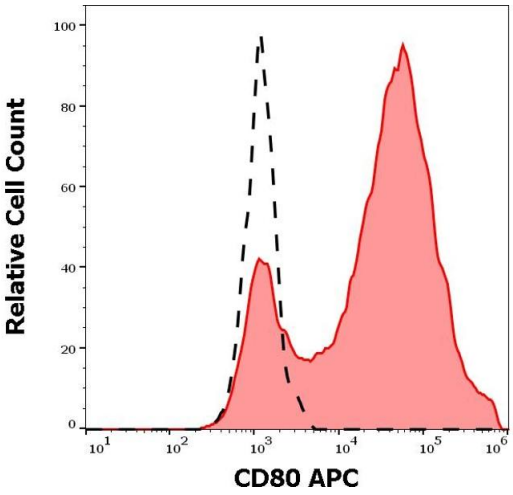
Hovden, Karlsen, Jonsson, Aarstad, Appel: "Maturation of monocyte derived dendritic cells with OK432 boosts IL-12p70 secretion and conveys strong T-cell responses." in: **BMC immunology**, Vol. 12, pp. 2, (2011) (PubMed).

Lee, Sieling, Ochoa, Krutzik, Guo, Hernandez, Rea, Cheng, Colonna, Modlin: "LILRA2 activation inhibits dendritic cell differentiation and antigen presentation to T cells." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 179, Issue 12, pp. 8128-36, (2007) (PubMed).

Kolar, Mehta, Pelayo, Capra: "A novel human B cell subpopulation representing the initial germinal center population to express AID." in: **Blood**, Vol. 109, Issue 6, pp. 2545-52, (2007) (PubMed).

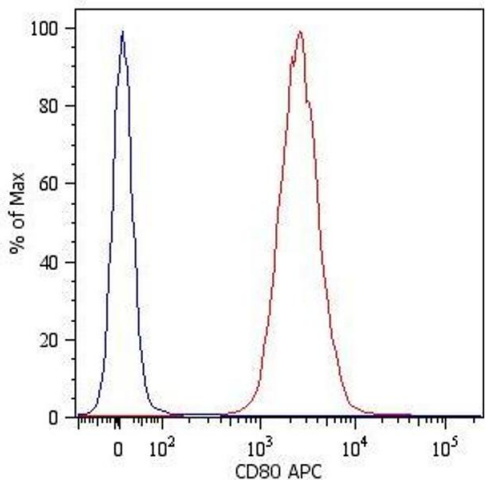
Campioni, Moretti, Ferrari, Punturieri, Castoldi, Lanza: "Immunophenotypic heterogeneity of bone marrow-derived mesenchymal stromal cells from patients with hematologic disorders: correlation with bone marrow microenvironment." in: **Haematologica**, Vol. 91, Issue 3, pp. 364-8, (2006) (PubMed).

There are more publications referencing this product on: Product page



Flow Cytometry

Image 1. Separation of CD80+ transfected P815 cells (red-filled) from P815 cells (black-dashed) in flow cytometry analysis (surface staining) stained using anti-human CD80 (MEM-233) APC antibody (10 µL reagent per milion cells in 100 µL of cell suspension).



Flow Cytometry

Image 2. Surface staining of RAJI human Burkitt lymphoma cell line with anti-human CD80 (MEM-233) APC. Total viable cells were used for analysis.