

Product datasheet

APC Anti-CD45 antibody [MEM-28] ab28106

★★★★★ [1 Abreviews](#) [5 References](#) [3 Images](#)

Overview

Product name	APC Anti-CD45 antibody [MEM-28]
Description	APC Mouse monoclonal [MEM-28] to CD45
Host species	Mouse
Conjugation	APC. Ex: 645nm, Em: 660nm
Specificity	ab28106 reacts with all alternative forms of human CD45 antigen
Tested applications	Suitable for: Flow Cyt
Species reactivity	Reacts with: Human
Immunogen	Tissue, cells or virus corresponding to Human CD45. Human thymocytes and T lymphocytes
Positive control	Flow Cyt: Human peripheral blood cells.
General notes	<p>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.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	<p>pH: 7.4</p> <p>Preservative: 0.097% Sodium azide</p> <p>Constituents: PBS, 0.2% BSA</p>
Purity	IgG fraction
Clonality	Monoclonal
Clone number	MEM-28

Isotype

IgG1

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab28106 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt	★★★★★ (1)	Use at an assay dependent concentration.

Target

Function

Protein tyrosine-protein phosphatase required for T-cell activation through the antigen receptor. Acts as a positive regulator of T-cell coactivation upon binding to DPP4. The first PTPase domain has enzymatic activity, while the second one seems to affect the substrate specificity of the first one. Upon T-cell activation, recruits and dephosphorylates SKAP1 and FYN.

Involvement in disease

Defects in PTPRC are a cause of severe combined immunodeficiency autosomal recessive T-cell-negative/B-cell-positive/NK-cell-positive (T(-)B(+)NK(+)) SCID [MIM:608971]. A form of severe combined immunodeficiency (SCID), a genetically and clinically heterogeneous group of rare congenital disorders characterized by impairment of both humoral and cell-mediated immunity, leukopenia, and low or absent antibody levels. Patients present in infancy recurrent, persistent infections by opportunistic organisms. The common characteristic of all types of SCID is absence of T-cell-mediated cellular immunity due to a defect in T-cell development. Genetic variations in PTPRC are involved in multiple sclerosis susceptibility (MS) [MIM:126200]. MS is a neurodegenerative disorder characterized by the gradual accumulation of focal plaques of demyelination particularly in the periventricular areas of the brain. Peripheral nerves are not affected. Onset usually in third or fourth decade with intermittent progression over an extended period. The cause is still uncertain.

Sequence similarities

Belongs to the protein-tyrosine phosphatase family. Receptor class 1/6 subfamily. Contains 2 fibronectin type-III domains. Contains 2 tyrosine-protein phosphatase domains.

Domain

The first PTPase domain interacts with SKAP1.

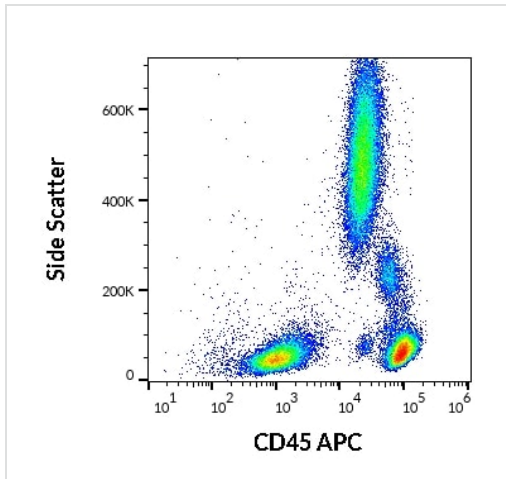
Post-translational modifications

Heavily N- and O-glycosylated.

Cellular localization

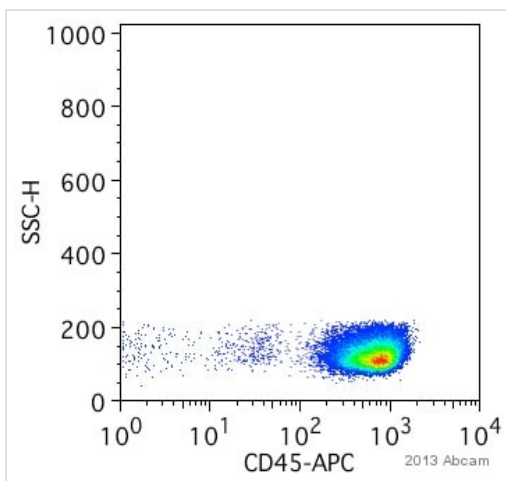
Membrane. Membrane raft. Colocalized with DPP4 in membrane rafts.

Images



Flow cytometry surface staining pattern of human peripheral whole blood stained using ab28106 at (10 μ l reagent / 100 μ l of peripheral whole blood).

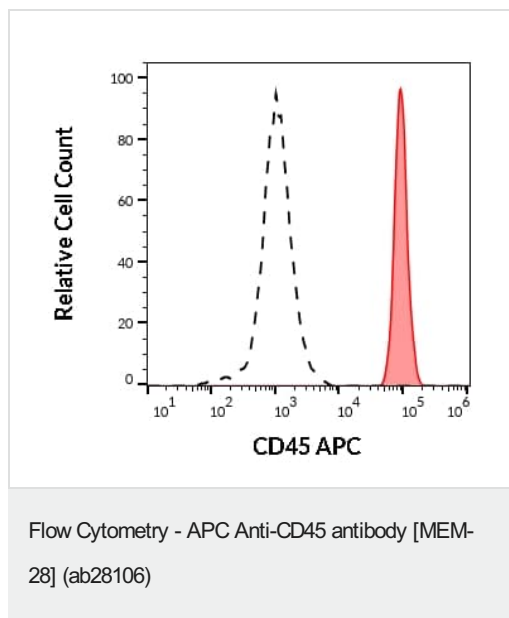
Flow Cytometry - APC Anti-CD45 antibody [MEM-28] (ab28106)



ab28106 staining the CD45 in Human PBMCs by Flow Cytometry. Cells were prepared by Ficoll-Hypaque isolation of PBMCs from buffy coat. The sample was incubated with the primary antibody (1/25 in PBS + 2% Human serum and 1mM EDTA) for 25 minutes at 4°C.

Flow Cytometry - APC Anti-CD45 antibody [MEM-28] (ab28106)

This image is courtesy of an anonymous Abreview



Separation of human CD45 positive lymphocytes (red-filled) from human CD45 negative blood debris (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using ab28106 (10 µl reagent / 100 µl of peripheral whole blood).

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