

## Product datasheet

### FITC Anti-CD79α antibody [HM57] ab275943

3 Images

#### Overview

<b>Product name</b>	FITC Anti-CD79a antibody [HM57]
<b>Description</b>	FITC Mouse monoclonal [HM57] to CD79a
<b>Host species</b>	Mouse
<b>Conjugation</b>	FITC. Ex: 493nm, Em: 528nm
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt (Intra)
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide corresponding to Human CD79a aa 202-216. Human granulocytes Database link: <a href="#">P11912</a>
<b>Positive control</b>	Flow Cyt (Intra): Human lymphocytes, neutrophil, granulocytes and peripheral whole blood.
<b>General notes</b>	<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&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C. Do Not Freeze. Store In the Dark.
<b>Storage buffer</b>	Preservative: 0.1% Sodium azide Constituent: 99.9% PBS
<b>Purity</b>	Size exclusion
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	HM57
<b>Isotype</b>	IgG1

#### Applications

## The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab275943 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 (Intra)		Use at an assay dependent concentration. 4 µl reagent / 100 µl of peripheral whole blood.

## Target

### Function

Required in cooperation with CD79B for initiation of the signal transduction cascade activated by binding of antigen to the B-cell antigen receptor complex (BCR) which leads to internalization of the complex, trafficking to late endosomes and antigen presentation. Also required for BCR surface expression and for efficient differentiation of pro- and pre-B-cells. Stimulates SYK autophosphorylation and activation. Binds to BLNK, bringing BLNK into proximity with SYK and allowing SYK to phosphorylate BLNK. Also interacts with and increases activity of some Src-family tyrosine kinases. Represses BCR signaling during development of immature B cells.

### Tissue specificity

B-cells.

### Involvement in disease

Defects in CD79A are the cause of agammaglobulinemia type 3 (AGM3) [MIM:613501]. It is a primary immunodeficiency characterized by profoundly low or absent serum antibodies and low or absent circulating B cells due to an early block of B-cell development. Affected individuals develop severe infections in the first years of life. Note=Two different mutations, one at the splice donor site of intron 2 and the other at the splice acceptor site for exon 3, have been identified. Both mutations give rise to a truncated protein.

### Sequence similarities

Contains 1 Ig-like C2-type (immunoglobulin-like) domain.  
Contains 1 ITAM domain.

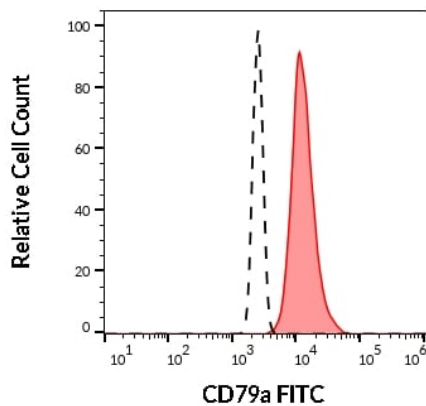
### Post-translational modifications

Phosphorylated on tyrosine, serine and threonine residues upon B-cell activation. Phosphorylation of tyrosine residues by Src-family kinases is an early and essential feature of the BCR signaling cascade. The phosphorylated tyrosines serve as docking sites for SH2-domain containing kinases, leading to their activation which in turn leads to phosphorylation of downstream targets. Phosphorylation of serine and threonine residues may prevent subsequent tyrosine phosphorylation.

### Cellular localization

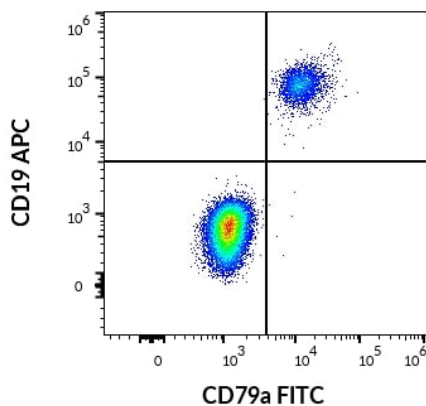
Cell membrane. Following antigen binding, the BCR has been shown to translocate from detergent-soluble regions of the cell membrane to lipid rafts although signal transduction through the complex can also occur outside lipid rafts.

## Images



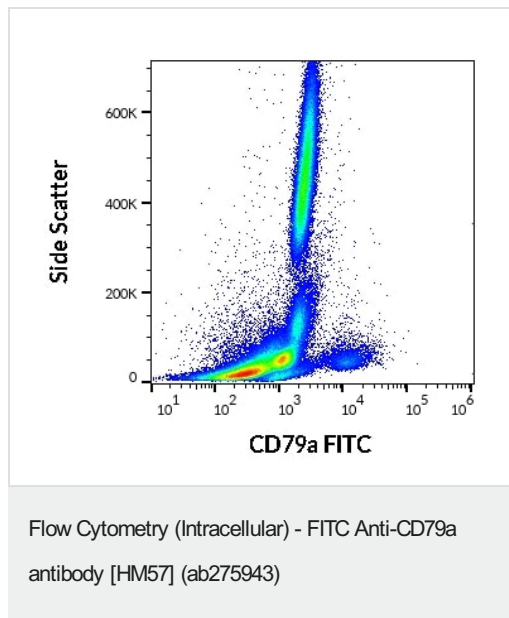
Flow Cytometry (Intracellular) - FITC Anti-CD79a antibody [HM57] (ab275943)

Separation of human CD79a positive B cells (red-filled) from neutrophil granulocytes (black-dashed) in Intracellular Flow Cytometry analysis (intracellular staining) of human peripheral whole blood stained using ab275943 (4 ul reagent / 100 ul of peripheral whole blood).



Flow Cytometry (Intracellular) - FITC Anti-CD79a antibody [HM57] (ab275943)

Flow cytometry multicolor surface staining pattern of human lymphocytes using a anti-human CD-19 antibody (10 ul reagent / 100 ul of peripheral whole blood) and intracellular staining of human lymphocytes using ab275943 (4 ul reagent / 100 ul of peripheral whole blood).



Flow cytometry intracellular staining pattern of human peripheral whole blood stained using ab275943 (4 ul reagent / 100 ul of peripheral whole blood).

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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