abcam

Product datasheet

PE Anti-CD79a antibody [HM47] ab177274

3 References 3 Images

Overview

Product name	PE Anti-CD79a antibody [HM47]
Description	PE Mouse monoclonal [HM47] to CD79a
Host species	Mouse
Conjugation	PE. Ex: 488nm, Em: 575nm
Tested applications	**Suitable for:** Flow Cyt (Intra)
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide corresponding to Human CD79a aa 208-222 (intracellular).
Positive control	Flow Cyt (Intracellular): Human blood.
General notes	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. 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

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	pH: 7.4 Preservative: 0.097% Sodium azide Constituents: PBS, 0.2% BSA
Purity	Size exclusion
Clonality	Monoclonal
Clone number	HM47
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab177274 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. 10 µl reagent / 100 µl of whole blood or 10^6 cells in a suspension.

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.

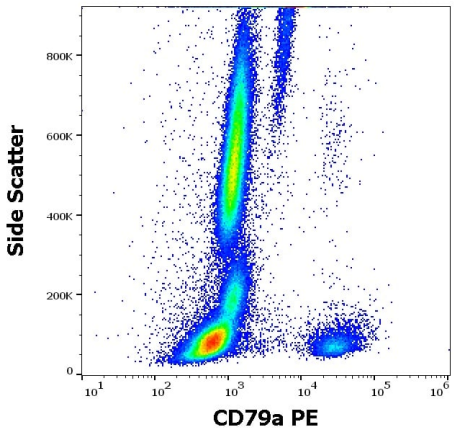
Involvement in disease Defects in CD79A are the cause of agammaglobulinemia type 3 (AGM3) [MIM:613501]. It is a primary immunodeficiency characterized by profoundly low or absent serum antibodies and low or absent circulating B cells due to an early block of B-cell development. Affected individuals develop 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.

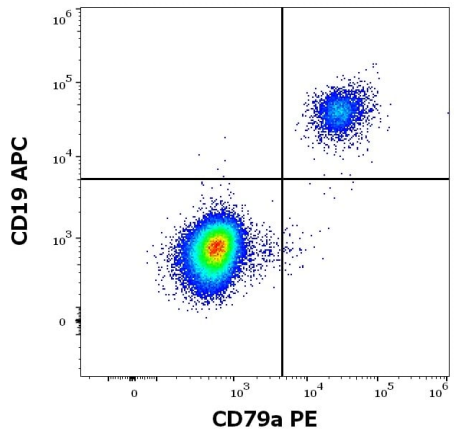
Cellular localization Cell membrane. Following antigen binding, the BCR has been shown to translocate from detergent-soluble regions of the cell membrane to lipid rafts although signal transduction through the complex can also occur outside lipid rafts.

Images



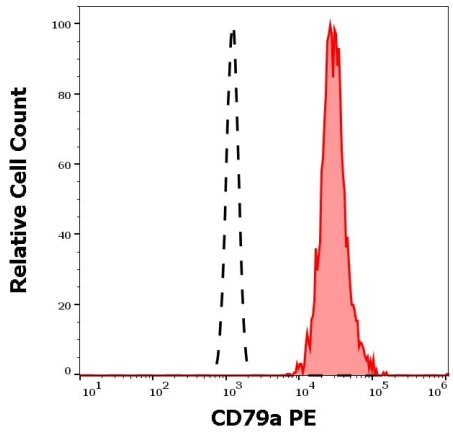
Flow Cytometry (Intracellular) - PE Anti-CD79a antibody [HM47] (ab177274)

Flow cytometry analysis of human peripheral blood labeling CD79a using ab177274 at 10 µL/100ul peripheral whole blood. Intracellular staining.



Flow Cytometry (Intracellular) - PE Anti-CD79a antibody [HM47] (ab177274)

Flow cytometry analysis of human peripheral blood labeling CD79a using ab177274 at 10 µL/100ul peripheral whole blood. CD19 is labeled with an Anti-human CD19-PE conjugate at 10 µL/100ul peripheral whole blood. Intracellular staining.



Flow Cytometry (Intracellular) - PE Anti-CD79a antibody [HM47] (ab177274)

Flow cytometry analysis of human peripheral blood labeling CD79a using ab177274 at 10 µL/100ul peripheral whole blood. CD79a-positive B-cells (Red) are separated from CD79-negative neutrophil granulocytes (Black, dashed line). Intracellular staining.