

Product datasheet

Anti-CD79 α antibody [HM47] (PerCP/Cy5.5 $\text{\textcircled{R}}$) ab234073

1 Image

Overview

Product name	Anti-CD79a antibody [HM47] (PerCP/Cy5.5 $\text{\textcircled{R}}$)
Description	Mouse monoclonal [HM47] to CD79a (PerCP/Cy5.5 $\text{\textcircled{R}}$)
Host species	Mouse
Conjugation	PerCP/Cy5.5 $\text{\textcircled{R}}$. Ex: 482nm, Em: 690nm
Tested applications	Suitable for: Flow Cyt
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide corresponding to Human CD79a aa 208-222 (C terminal). Sequence: GTYQDVGSLNIGDVQ Database link: P11912 <div style="display: flex; justify-content: space-around;"> Run BLAST with Run BLAST with </div>
Positive control	Flow Cytometry: Human peripheral blood cells.
General notes	<p>This product or portions thereof is manufactured under license from Carnegie Mellon University under U.S. Patent Number 5, 268, 486 and related patents. Cy and CyDye are trademarks of GE Healthcare Limited.</p> <p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our AbpromiseTM guarantee.</p> <p>In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications & species that this product has been "predicted to work with," however this information is not covered by our Abpromise guarantee.</p> <p>Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.</p> <p>Please check that this product meets your needs before purchasing. If you have any questions,</p>

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, as well as customer reviews and Q&As.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Store In the Dark.
Storage buffer	pH: 7.40 Preservative: 0.0975% Sodium azide Constituent: PBS
Purity	Size exclusion
Purification notes	ab234073 is conjugated with tandem dye PerCP-Cy™5.5 under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use.
Clonality	Monoclonal
Clone number	HM47
Isotype	IgG1

Applications

Our [Abpromise guarantee](#) covers the use of **ab234073** 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		Use 4µl for 10 ⁶ cells.

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.

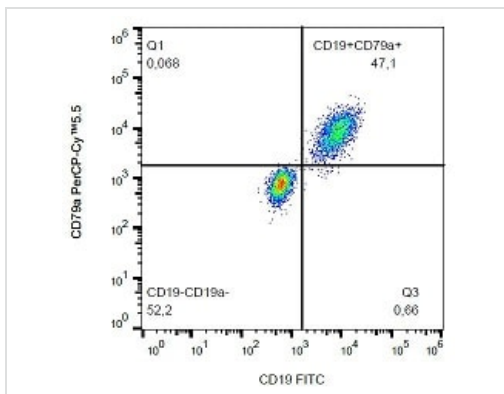
Post-translational modifications

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



Surface staining of CD79a in human peripheral blood with ab234073. Gated on leukocytes.

Flow Cytometry - Anti-CD79a antibody [HM47]
(PerCP/Cy5.5®) (ab234073)

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