

Mouse anti-Human CD79a Monoclonal Antibody | anti-CD79a antibody

Anti-Hu CD79a APC

CATALOG # AAA129134	HOST Mouse	REACTIVITY Human	APPLICATIONS Flow Cytometry, Functional Assay
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PRODUCT SYNONYMS

CD79a; Monoclonal Antibody; Anti-Hu CD79a APC; BCR alpha; Ig-alpha; MB-1; IGA; CD79a molecule; anti-CD79a antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	Mouse IgG1 kappa
Clone Number	ZL7.4
Specificity	The mouse monoclonal antibody ZL7.4 interacts with extracellular domain of CD79a (Ig alpha), a 40-45kDa subunit of B cell antigen-specific receptor (BCR) and its early developmental forms.
Purity/Purification	The purified antibody is conjugated with allophycocyanin (APC) under optimum conditions. The conjugate is purified by size-exclusion chromatography.
Form/Format	Stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide
Applicable Applications for anti-CD79a antibody	FCM/FACS (Flow Cytometry)
Conjugation	APC
Immunogen	IgM complex isolated from Daudi cells
Preparation and Storage	Store in the dark at 2-8 degree C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.

ADDITIONAL INFORMATION

Related Product Information for anti-CD79a antibody	CD79a (Ig alpha, MB1) forms disulfide-linked heterodimer with CD79b (Ig beta). They both are transmembrane proteins with extended cytoplasmic domains containing immunoreceptor tyrosine activation motives (ITAMs), and together with cell surface immunoglobulin they constitute B-cell antigen-specific receptor (BCR). CD79a and b are the first components of BCR that are expressed developmentally. They appear on pro-B cells in association with the endoplasmic reticulum chaperone calnexin. Subsequently, in pre-B cells, CD79 heterodimer is associated with lambda5-VpreB surrogate immunoglobulin and later with antigen-specific surface immunoglobulins. At the plasma cell stage, CD79a is present as an intracellular component. CD79a/b complex interacts with Src-family tyrosine kinase Lyn, which phosphorylates its cytoplasmic ITAM motives to form docking sites for downstream signaling.
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References	*Stopforth RJ, Oldham RJ, Tutt AL, Duriez P, Chan HTC, Binkowski BF, Zimprich C, Li D, Hargreaves PG, Cong M, Reddy V, Leandro MJ, Cambridge G, Lux A, Nimmerjahn F, Cragg MS: Detection of Experimental and Clinical Immune Complexes by Measuring SHIP-1 Recruitment to the Inhibitory FcγRIIB. J Immunol. 2018 Mar 1;200(5):1937-1950., URL: https://www.ncbi.nlm.nih.gov/pubmed/term=stopforth+rj+oldham+rj,*Bell PB, Rooney N, Bosanquet AG: CD79a detected by ZL7.4 separates chronic lymphocytic leukemia from mantle cell lymphoma in the leukemic phase. Cytometry. 1999 Jun 15;38(3):102-5., URL: https://www.ncbi.nlm.nih.gov/pubmed/10397328,*Luger D, Yang YA, Raviv A, Weinberg D, Banerjee S, Lee MJ, Trepel J, Yang L, Wakefield LM: Expression of the B-cell receptor component CD79a on immature myeloid cells contributes to their tumor promoting effects. PLoS One. 2013 Oct 16;8(10):e76115., URL: https://www.ncbi.nlm.nih.gov/pubmed/24146823,*Cragg MS, Chan HT, Fox MD, Tutt A, Smith A, Oscier DG, Hamblin TJ, Glennie MJ: The alternative transcript of CD79b is overexpressed in B-CLL and inhibits signaling for apoptosis. Blood. 2002 Nov 1;100(9):3068-76., URL: https://www.ncbi.nlm.nih.gov/pubmed/term=cragg+ms+fox+md *Fuentes-Pananá EM, Bannish G, Karnell FG, Trembl JF, Monroe JG: Analysis of the individual contributions of Igalpha (CD79a)- and Igbeta (CD79b)-mediated tonic signaling for bone marrow B cell development and peripheral B cell maturation. J Immunol. 2006 Dec 1;177(11):7913-22., URL: http://www.ncbi.nlm.nih.gov/pubmed/17114463ordina,*Fuentes-Pananá EM, Bannish G, van der Voort D, King LB, Monroe JG: Ig alpha/Ig beta complexes generate signals for B cell development independent of selective plasma membrane compartmentalization. J Immunol. 2005 Feb 1;174(3):1245-52., URL: http://www.ncbi.nlm.nih.gov/pubmed/15661879ordina,*Fuentes-Pananá EM, Bannish G, Shah N, Monroe JG: Basal Igalpha/Igbeta signals trigger the coordinated initiation of pre-B cell antigen receptor-dependent processes. J Immunol. 2004 Jul 15;173(2):1000-11., URL: http://www.ncbi.nlm.nih.gov/pubmed/15240688ordina,*Pike KA, Iacampo S, Friedmann JE, Ratcliffe MJ: The cytoplasmic domain of Ig alpha is necessary and sufficient to support efficient early B cell development. J Immunol. 2004 Feb 15;172(4):2210-8., URL: http://www.ncbi.nlm.nih.gov/pubmed/14764688ordina,*Bannish G, Fuentes-Pananá EM, Cambier JC, Pear WS, Monroe JG: Ligand-independent signaling Functional Application (FUNCTION)tions for the B lymphocyte antigen receptor and their role in positive selection during B lymphopoiesis. J Exp Med. 2001 Dec 3;194(11):1583-96., URL: http://www.ncbi.nlm.nih.gov/pubmed/11733573ordina
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4502685
NCBI GeneID	973
NCBI Accession #	NP_001774.1
NCBI GenBank Nucleotide #	NM_001783.3
UniProt Accession #	P11912 ; Q53FB8 ; A0N775
Molecular Weight	25,038 Da
NCBI Official Full Name	B-cell antigen receptor complex-associated protein alpha chain isoform 1
NCBI Official Synonym Full Names	CD79a molecule, immunoglobulin-associated alpha
NCBI Official Symbol	CD79A
NCBI Official Synonym Symbols	IGA; MB-1
NCBI Protein Information	B-cell antigen receptor complex-associated protein alpha chain; ig-alpha; MB-1 membrane glycoprotein; surface IgM-associated protein; CD79a antigen (immunoglobulin-associated alpha); membrane-bound immunoglobulin-associated protein
UniProt Protein Name	B-cell antigen receptor complex-associated protein alpha chain
UniProt Gene Name	CD79A
UniProt Synonym Gene Names	IGA; MB1
UniProt Entry Name	CD79A_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.