ARG54258
anti-CD79a antibody [HM47] (PE)

Package: 50 tests
Store at: 4°C

Summary

Product Description	PE-conjugated Mouse Monoclonal antibody [HM47] recognizes CD79a
Tested Reactivity	Hu, Ms, Rat, Bov, Chk, Dog, Gpig, Hrs, NHuPrm, Pig, Rb
Tested Application	FACS
Specificity	The clone HM47 reacts with intracellular domain of CD79a (Ig alpha), a 40-45 kDa subunit of B cell antigen-specific receptor (BCR) and its early developmental forms.
Host	Mouse
Clonality	Monoclonal
Clone	HM47
Isotype	IgG1
Target Name	CD79a
Species	Human
Immunogen	Synthetic peptide corresponding to C terminal amino acids 208-222 of human CD79a
Conjugation	PE
Alternate Names	Surface IgM-associated protein; B-cell antigen receptor complex-associated protein alpha chain; Membrane-bound immunoglobulin-associated protein; Ig-alpha; MB-1 membrane glycoprotein; MB-1; IGA; CD antigen CD79a

Application Instructions

Application table

Application	Dilution
FACS	10 µl / 10^6 cells

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

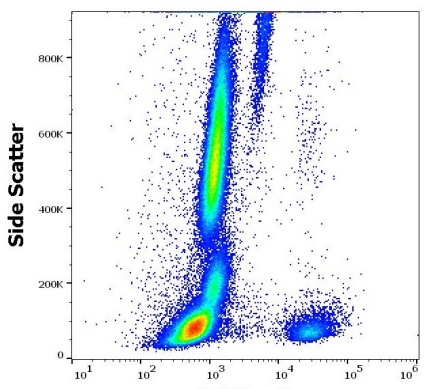
Form	Liquid
Purification Note	The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
Buffer	PBS, 15 mM Sodium azide and 0.2% (w/v) high-grade protease free BSA
Preservative	15 mM Sodium azide
Stabilizer	0.2% (w/v) high-grade protease free BSA
Storage instruction	Aliquot and store in the dark at 2-8°C. Keep protected from prolonged exposure to light. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be

	gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

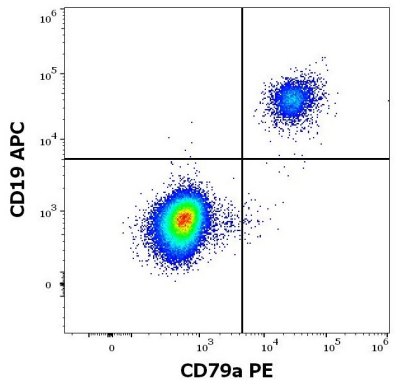
Gene Symbol	CD79A
Gene Full Name	CD79a molecule, immunoglobulin-associated alpha
Background	CD79a: The B lymphocyte antigen receptor is a multimeric complex that includes the antigen-specific component, surface immunoglobulin (Ig). Surface Ig non-covalently associates with two other proteins, Ig-alpha and Ig-beta, which are necessary for expression and function of the B-cell antigen receptor. This gene encodes the Ig-alpha protein of the B-cell antigen component. Alternatively spliced transcript variants encoding different isoforms have been described. [provided by RefSeq, Jul 2008]
Function	CD79a is 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. [UniProt]
Highlight	Related products: CD79a antibodies; Anti-Mouse IgG secondary antibodies; Related news: Tumor-Infiltrating Lymphocytes (TILs)
Research Area	Cancer antibody; Developmental Biology antibody; Immune System antibody
Calculated Mw	25 kDa
PTM	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. Phosphorylated by LYN. Phosphorylation of serine and threonine residues may prevent subsequent tyrosine phosphorylation. Arginine methylation in the ITAM domain may interfere with the binding of SYK. It promotes signals leading to B-cell differentiation (By similarity).

Images



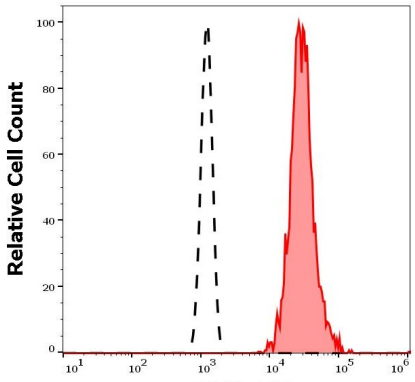
ARG54258 anti-CD79a antibody [HM47] (PE) FACS image

Flow Cytometry: Human peripheral whole blood stained with ARG54258 anti-CD79a antibody [HM47] (PE) (10 µl reagent / 100 µl of peripheral whole blood).



ARG54258 anti-CD79a antibody [HM47] (PE) FACS image

Flow Cytometry: Human lymphocytes stained with ARG53782 anti-CD19 antibody [LT19] (APC) (10 µl reagent / 100 µl of peripheral whole blood) and ARG54258 anti-CD79a antibody [HM47] (PE) (10 µl reagent / 100 µl of peripheral whole blood).



ARG54258 anti-CD79a antibody [HM47] (PE) FACS image

Flow Cytometry: Separation of human CD79a positive B cells (red-filled) from neutrophil granulocytes (black-dashed). Human peripheral whole blood stained with ARG54258 anti-CD79a antibody [HM47] (PE) (10 µl reagent / 100 µl of peripheral whole blood).