



1P-731-T025

Monoclonal Antibody to CD79a Phycoerythrin (PE) conjugated (25 tests)

Clone:	HM47
Isotype:	Mouse IgG1
Specificity:	The mouse monoclonal antibody 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.
Regulatory Status:	RUO
Immunogen:	Synthetic peptide corresponding to C terminal amino acids 208-222 of human CD79a
Species Reactivity:	Human, Non-Human Primates, Porcine, Mouse, Rat, Bovine, Canine (Dog), Equine (Horse), Guinea pig, Rabbit, Chicken
Preparation:	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.
Storage Buffer:	The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
Usage:	The reagent is designed for Flow Cytometry analysis of human blood cells using 10 µl reagent / 100 µl of whole blood or 10 ⁶ cells in a suspension. The content of a vial (0.25 ml) is sufficient for 25 tests.
Expiration:	See vial label
Lot Number:	See vial label
Background:	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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**Antibodies****References:**

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- *Rassenti LZ, Kipps TJ: Expression of Ig-beta (CD79b) by chronic lymphocytic leukemia B cells that lack immunoglobulin heavy-chain allelic exclusion. *Blood.* 2000 Apr 15;95(8):2725-7.
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- *Zhao XF, Hassan A, Perry A, Ning Y, Stass SA, Dehner LP: C-MYC rearrangements are frequent in aggressive mature B-Cell lymphoma with atypical morphology. *Int J Clin Exp Pathol.* 2008 Jan 1;1(1):65-74.
- *Islas-Ohlmayer M, Padgett-Thomas A, Domiati-Saad R, Melkus MW, Cravens PD, Martin Mdel P, Netto G, Garcia JV: Experimental infection of NOD/SCID mice reconstituted with human CD34+ cells with Epstein-Barr virus. *J Virol.* 2004 Dec;78(24):13891-900.

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