Technical Data Sheet

BV421 Mouse Anti-Human CD79a

Product Information

Material Number: 562852

Alternate Name: CD79a, immunoglobulin-associated alpha; CD79A; Ig-alpha; IGA; Igα; MB-1

Tested in Development: Mouse

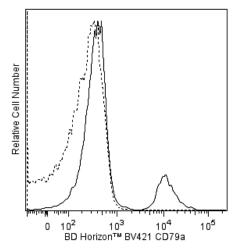
Workshop: V cB017

Storage Buffer: Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The HM47 monoclonal antibody specifically binds to the cytoplasmic domain of CD79a. CD79a is a 47 kDa type 1 transmembrane glycoprotein present on B lymphocytes. CD79a is also referred to as mb-1, IGA and Ig-alpha (Ig α). It is expressed on B cells at various stages of differentiation, from pre-B cell stage, probably before expression of cytoplasmic μ chain, to plasma cell stage, in which it is detected only in the cytoplasm. CD79a associates with CD79b to form part of the B-cell receptor complex. It has been suggested that CD79a may play a role in mediating the transport of IgM to the cell surface. This antibody has been found to crossreact with permeabilized A20 cells (mouse B cell line).

The antibody was conjugated to BD Horizon™ BV421 which is part of the BD Horizon™ Brilliant Violet™ family of dyes. With an Ex Max of 407-nm and Em Max at 421-nm, BD Horizon™ BV421 can be excited by the violet laser and detected in the standard Pacific Blue™ filter set (eg, 450/50-nm filter). BD Horizon™ BV421 conjugates are very bright, often exhibiting a 10 fold improvement in brightness compared to Pacific Blue™ conjugates.



Flow cytometric analysis of CD79a expression on human peripheral blood lymphocytes. Human peripheral blood mononuclear cells were fixed with BD Cytofix™ Fixation Buffer (Cat. No. 554655) and permeabilized with BD Perm/Wash™ Buffer (Cat. No. 554723) and subsequently stained with either BD Horizon™ BV421 Mouse Anti-Human CD79a antibody (Cat. No. 562852; solid line histogram) or BD Horizon™ BV421 Mouse IgG1, κ Isotype Control (Cat. No. 562438; dashed line histogram). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact lymphocytes. Flow cytometry was performed using a BD™ LSR II Flow Cytometer System.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The antibody was conjugated with BD Horizon™ BV421 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV421 were removed.

Application Notes

Application

Intracellular staining (flow cytometry) Routinely Tested

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
562438	BV421 Mouse IgG1, k Isotype Control	50 μg	X40
554655	Fixation Buffer	100 ml	(none)
554723	Perm/Wash Buffer	100 ml	(none)

Product Notices

- This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100- μ l experimental sample (a test).
- Source of all serum proteins is from USDA inspected abattoirs located in the United States.
- An isotype control should be used at the same concentration as the antibody of interest.
- Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
- 6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
- Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR. 7.
- Brilliant Violet™ 421 is a trademark of Sirigen.
- Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.

Engel P, Wagner N, Tedder TF. CD79 Workshop report. In: Schlossman SF, Boumsell L, Gilks W, et al, ed. Leucocyte Typing V: White Cell Differentiation Antigens. New York, NY: Oxford University Press; 1995:667-670. (Clone-specific: Immunoprecipitation)

Mason DY, Cordell JL, Tse AG, et al. The IgM-associated protein mb-1 as a marker of normal and neoplastic B cells. J Immunol. 1991; 147(11):2474-2482. (Immunogen: Immunofluorescence, Immunohistochemistry)

Sakaguchi N, Kashiwamura S, Kimoto M, Thalmann P, Melchers F. B lymphocyte lineage-restricted expression of mb-1, a gene with CD3-like structural properties. EMBO J. 1988; 7(11):3457-3464. (Biology)

Schlossman SF, Boumsell L, Gilks W, et al, ed. Leukocyte Typing V: White Cell Differentiation Antigens. New York: Oxford University Press; 1995. (Clone-specific)

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