

## Technical Data Sheet

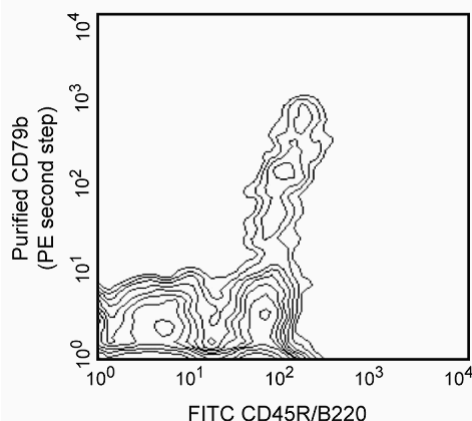
## Purified Hamster Anti-Mouse CD79b

## Product Information

<b>Material Number:</b>	555302
<b>Alternate Name:</b>	Ig $\beta$
<b>Size:</b>	0.5 mg
<b>Concentration:</b>	0.5 mg/ml
<b>Clone:</b>	HM79b (also known as HM79-16)
<b>Immunogen:</b>	Mouse B lymphoma, WEHI-123
<b>Isotype:</b>	Armenian Hamster IgG2, $\lambda$ 1
<b>Reactivity:</b>	QC Testing: Mouse
<b>Storage Buffer:</b>	Aqueous buffered solution containing $\leq$ 0.09% sodium azide.

## Description

The HM79b antibody reacts with an extracellular epitope of Ig  $\beta$  chain (Ig $\beta$  or CD79b), a 35-40-kDa transmembrane protein which forms an 80-90-kDa disulfide-linked heterodimer with Ig  $\alpha$  chain (Ig $\alpha$  or CD79a, 30-35 kDa). On mature B lymphocytes, the CD79a/CD79b heterodimers are non-covalently associated with surface IgM to form the B-cell receptor complex (BCR). The presence of CD79a/CD79b is necessary for surface expression of the BCR and signal transduction via the BCR in B lymphocytes and pre-B cells. It was recently reported that CD79b may be expressed on the cell surface preceding the appearance of surface IgM during B-lymphocyte development. At this pro-B-cell stage, CD79b participates in signal transduction involved in the regulation of B-cell development. It should be noted that multi-parameter flow cytometric analyses of bone marrow suspensions performed at BD Biosciences Pharmingen have been unable to detect surface staining by HM79b mAb on CD45R/B220+ IgM- cells.



**Two-color analysis of the expression of CD79b on mouse bone marrow cells.** A single-cell suspension of BALB/c bone marrow was simultaneously stained with FITC-conjugated anti-mouse CD45R/B220 RA3-6B2 (Cat. No. 553087/553088) and purified HM79b monoclonal antibodies, followed by PE-conjugated anti-hamster IgG cocktail (Cat. No. 554056). Flow cytometry was performed on a BD FACSCalibur™ flow cytometry system.

## Preparation and Storage

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

Store undiluted at 4° C.

## Application Notes

## Application

Flow cytometry	Routinely Tested
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## Recommended Assay Procedure:

No B-cell stimulatory activity has been detected.

## BD Biosciences

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## Suggested Companion Products

Catalog Number	Name	Size	Clone
553087	FITC Rat Anti-Mouse CD45R/B220	0.1 mg	RA3-6B2
554056	PE Mouse Anti-Armenian and Syrian Hamster IgG Cocktail	0.2 mg	(none)
553962	Purified Hamster IgG2, $\lambda$ 1 Isotype Control	0.5 mg	Ha4/8

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharminggen/protocols](http://www.bdbiosciences.com/pharminggen/protocols) for technical protocols.
3. 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.
4. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.
5. Although hamster immunoglobulin isotypes have not been well defined, BD Biosciences Pharmingen has grouped Armenian and Syrian hamster IgG monoclonal antibodies according to their reactivity with a panel of mouse anti-hamster IgG mAbs. A table of the hamster IgG groups, Reactivity of Mouse Anti-Hamster Ig mAbs, may be viewed at [http://www.bdbiosciences.com/pharminggen/hamster\\_chart\\_11x17.pdf](http://www.bdbiosciences.com/pharminggen/hamster_chart_11x17.pdf).

## References

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