## **Technical Data Sheet**

# **BV421 Rat Anti-Mouse IgG1**

#### **Product Information**

Material Number: 562580

Alternate Name: Ighg1; Immunoglobulin heavy constant gamma 1; Igh-4

 Size:
 50 μg

 Concentration:
 0.2 mg/ml

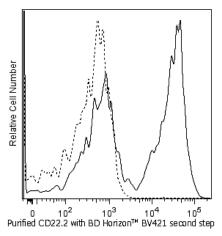
 Clone:
 A85-1

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

#### Description

The A85-1 antibody reacts specifically with mouse IgG1 of Igh-Ca and Igh-Cb haplotypes. It does not react with other Ig isotypes. Detection of surface immunoglobulin on B lymphoma cells has been demonstrated with the A85-1 monoclonal antibody. A suspension of pooled mouse IgG1 was used as the source of immunogen.

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 CD22.2 expression by mouse splenocytes using BD Horizon™ BV421 Rat Anti-Mouse IgG1 as a second step. BALB/c mouse splenocytes were stained with either purified Mouse Anti-Mouse CD22.2 antibody (clone Cy34.1, solid line histogram) or with no antibody (dashed line histogram). After washing the cells were stained with BD Horizon™ BV421 Rat Anti-Mouse IgG1 antibody (Cat. No. 562580) as the second step. The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of viable splenocytes. Flow cytometry was performed using a BD™ LSR II Flow Cytometer System.

#### **Preparation and Storage**

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

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

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

#### **Application Notes**

#### Application

Flow cytometry Routinely Tested

## **Suggested Companion Products**

 Catalog Number
 Name
 Size
 Clone

 554656
 Stain Buffer (FBS)
 500 ml
 (none)

# **Product Notices**

- 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- 2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
- 3. An isotype control should be used at the same concentration as the antibody of interest.

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- 4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- 5. 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.
- For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
- 7. Pacific Blue<sup>TM</sup> is a trademark of Molecular Probes, Inc., Eugene, OR.
- 8. Brilliant Violet<sup>TM</sup> 421 is a trademark of Sirigen.

#### References

Bhattacharya D, Lee DU, Sha WC. Regulation of Ig class switch recombination by NF-kappaB: retroviral expression of RelB in activated B cells inhibits switching to IgG1, but not to IgE. *Int Immunol.* 2002; 14(9):983-991. (Clone-specific: Flow cytometry)

Honjo T, Obata M, Yamawaki-Katoaka Y, et al. Cloning and complete nucleotide sequence of mouse immunoglobulin gamma 1 chain gene. *Cell.* 1979; 18(2):559-568. (Biology)

Ozaki K, Spolski R, Ettinger R, et al. Regulation of B cell differentiation and plasma cell generation by IL-21, a novel inducer of Blimp-1 and Bcl-6. *J Immunol.* 2004; 173(9):5361-5371. (Clone-specific: Flow cytometry)

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