Technical Data Sheet

BV421 Rat Anti-Mouse T- and B- Cell Activation Antigen

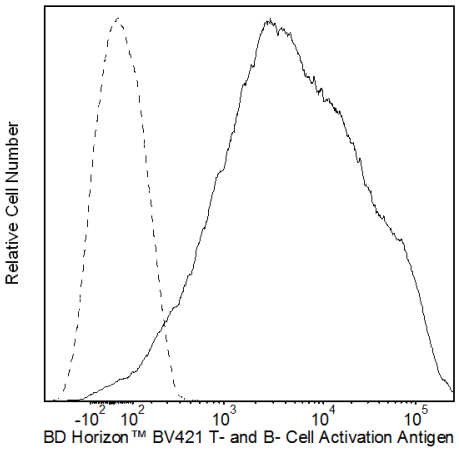
Product Information

Material Number:	**562967**
Alternate Name:	GL7
Size:	50 µg
Concentration:	0.2 mg/ml
Clone:	GL7
Immunogen:	In vitro-activated T-cell-depleted CBA/Ca mouse splenocytes
Isotype:	Rat (LOU) IgM, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The GL7 antibody reacts with a 35-kDa cell-surface protein found on T and B lymphocytes activated *in vitro*, on bone marrow Pre-B-II cells, germinal-center B cells, and a subpopulation of the thymocyte fraction expressing high density of CD3e. There is strain variability with respect to antigen distribution on thymocytes and Con A-activated spleen cells, with expression in BALB/c greater than that in C57BL/6.

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 for T- and B- Cell Activation Antigen in activated mouse spleen cells. *Concanavalin A-stimulated (3 days) mouse splenic leucocytes were preincubated with Purified Rat Anti-Mouse CD16/CD32 antibody (Mouse BD Fc Block™) (Cat. No. 553141/553142). The cells were then stained with either BD Horizon™ BV421 Rat IgM, κ Isotype Control (Cat No. 562708; dashed line histogram) or with the BD Horizon™ BV421 Rat Anti-Mouse T- and B- Cell Activation Antigen antibody (Cat No. 562967; solid line histogram). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of viable lymphoblasts. Flow cytometric analysis was performed using a BD LSRFortessa™ Cell Analyzer 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)
562708	BV421 Rat IgM, κ Isotype Control	50 µg	R4-22
553141	Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)	0.1 mg	2.4G2
553142	Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)	0.5 mg	2.4G2

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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.
6. Brilliant Violet™ 421 is a trademark of Sirigen.
7. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
8. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Han S, Dillon SR, Zheng B, Shimoda M, Schlissel MS, Kelsoe G. V(D)J recombinase activity in a subset of germinal center B lymphocytes. *Science.* 1997; 278(5336):301-305. (Biology)

Han S, Zheng B, Schatz DG, Spanopoulou E, Kelsoe G. Neoteny in lymphocytes: Rag1 and Rag2 expression in germinal center B cells. *Science.* 1996; 274(5295):2094-2097. (Biology)

Han S, Zheng B, Takahashi Y, Kelsoe G. Distinctive characteristics of germinal center B cells. *Semin Immunol.* 1997; 9(4):255-260. (Clone-specific: Flow cytometry)

Hathcock KS, Pucillo CE, Laszlo G, Lai L, Hodes RJ. Analysis of thymic subpopulations expressing the activation antigen GL7. Expression, genetics, and function. *J Immunol.* 1995; 155(10):4575-4581. (Clone-specific: Flow cytometry, Fluorescence activated cell sorting)

Laszlo G, Hathcock KS, Dickler HB, Hodes RJ. Characterization of a novel cell-surface molecule expressed on subpopulations of activated T and B cells. *J Immunol.* 1993; 150(12):5252-5262. (Immunogen: Flow cytometry, Fluorescence activated cell sorting, Immunoprecipitation)

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