### **Technical Data Sheet**

# Alexa Fluor® 647 Rat Anti-Mouse T- and B-Cell Activation Antigen

### **Product Information**

 Material Number:
 561529

 Alternate Name:
 GL7

 Size:
 50 μg

 Concentration:
 0.2 mg/ml

 Clone:
 GL7

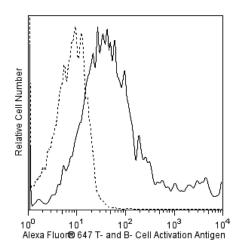
Immunogen: In vitro-activated T-cell-depleted CBA/Ca mouse splenocytes

Isotype:Rat (LOU) IgM,  $\kappa$ Reactivity:QC Testing: Mouse

Storage Buffer: Aqueous buffered solution containing ≤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.



Flow cytometric analysis for T- and B- Cell Activation Antigen in activated mouse spleen cells. Concanavalin A-stimulated (3 days) BALB/c mouse spleen cells were incubated with Rat Anti-Mouse CD16/CD32 (Fc block, Cat. No. 553141/553142) and were then stained either with an Alexa Fluor® 647 Rat IgM, κ Isotype Control (Cat No. 560892, dashed line histogram) or with the Alexa Fluor® 647 Rat Anti-Mouse T- and B- Cell Activation Antigen antibody (Cat No. 561529, solid line histogram). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of viable lymphoblasts. 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.

The antibody was conjugated to Alexa Fluor® 647 under optimum conditions, and unreacted Alexa Fluor® 647 was removed.

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

### **Application Notes**

Application

Flow cytometry	Routinely Tested	

## **Suggested Companion Products**

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
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
560892	Alexa Fluor® 647 Rat IgM, κ Isotype Control	0.1 mg	R4-22

### **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.

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- 3. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- 4. The Alexa Fluor®, Pacific Blue™, and Cascade Blue® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, excluding use in combination with microarrays, or as analyte specific reagents. The Alexa Fluor® dyes (except for Alexa Fluor® 430), Pacific Blue™ dye, and Cascade Blue® dye are covered by pending and issued patents.
- 5. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
- 6. Alexa Fluor® 647 fluorochrome emission is collected at the same instrument settings as for allophycocyanin (APC).
- 7. 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.
- 8. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

### 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. (Biology)
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. (Biology)

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)

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