

Technical Data Sheet

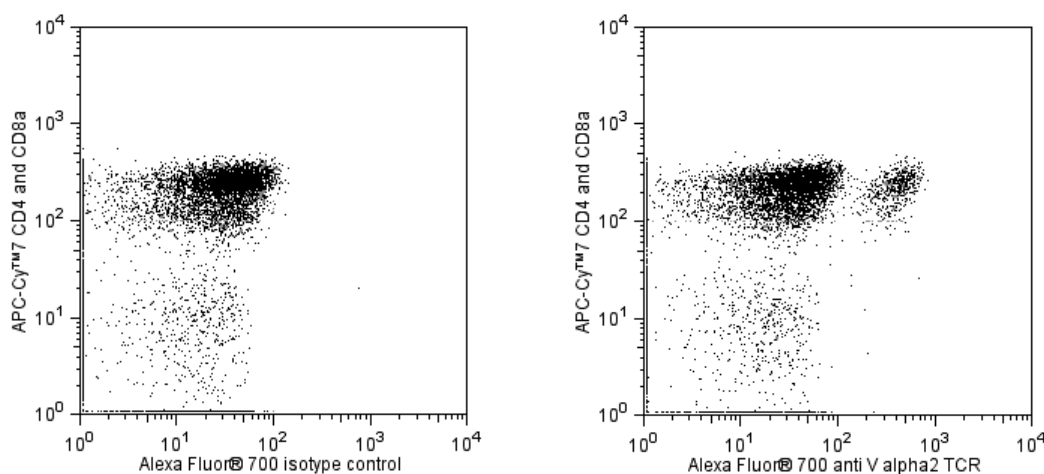
Alexa Fluor® 700 Rat Anti-Mouse Va2 TCR

Product Information

Material Number:	561239
Size:	50 µg
Concentration:	0.2 mg/ml
Clone:	B20.1
Immunogen:	Soluble αβ TCR from mouse cytotoxic T-cell clone KB5-C20
Isotype:	Rat (LOU) IgG2a, λ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing protein stabilizer and ≤0.09% sodium azide.

Description

The B20.1 monoclonal antibody specifically binds to most members of the Va2 T-cell Receptor (TCR) subfamily in mice having the *a*, *b*, and *c* haplotypes of the *Tcrb* gene complex. B20.1 antibody may crossreact with Vδ8 TCR, which shares >90% sequence homology with Va2 TCR. Levels of B20.1+ T cells appear to be influenced by Va haplotypes. Moreover, the frequencies of Va2+ CD8+ and CD4+ T cells are influenced by H-2 haplotypes.



Flow cytometric analysis of Va2 TcR expression on mouse lymph node cells. Lymph node cells from BALB/c mice were stained with APC-Cy™7 Rat anti-Mouse CD4 (Cat. No. 552051) and APC-Cy™7 Rat anti-Mouse CD8a (Cat. No. 557654) in addition to either an Alexa Fluor® 700 Rat IgG2a, λ isotype control (Cat. No. 557963, Left Panel) or with the Alexa Fluor® 700 Rat anti-Mouse Va2 TCR antibody (Cat. No. 561239, Right Panel). Two-color flow cytometric dot plots showing the correlated expression of Va2 TCR versus CD4 and CD8a were derived from gated events with the forward and side light-scattering characteristics of viable lymph node cells. Flow cytometry was performed on a BD™ LSR II Flow Cytometry 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® 700 under optimum conditions, and unreacted Alexa Fluor® 700 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
557963	Alexa Fluor® 700 Rat IgG2a, κ Isotype Control	0.1 mg	R35-95
554656	Stain Buffer (FBS)	500 ml	(none)
552051	APC-Cy™7 Rat Anti-Mouse CD4	0.1 mg	GK1.5
557654	APC-Cy™7 Rat Anti-Mouse CD8a	0.1 mg	53-6.7

BD Biosciences

bdbiosciences.com

United States 877.232.8995 Canada 888.268.5430 Europe 32.53.720.550 Japan 0120.8555.90 Asia Pacific 65.6861.0633 Latin America/Caribbean 0800.771.7157

For country-specific contact information, visit bdbiosciences.com/how_to_order/

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

BD, BD Logo and all other trademarks are the property of Becton, Dickinson and Company. ©2011 BD



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. Please refer to www.bdbiosciences.com/pharming/en/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® 700 has an adsorption maximum of ~700nm and a peak fluorescence emission of ~720nm. Before staining cells with this reagent, please confirm that your flow cytometer is capable of exciting the fluorochrome and discriminating the resulting fluorescence.
6. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
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 Fluorochrome Web Page at www.bdbiosciences.com/colors.

References

- Gregoire C, Rebai N, Schweisguth F, et al. Engineered secreted T-cell receptor alpha beta heterodimers. *Proc Natl Acad Sci U S A*. 1991; 88(18):8077-8081. (Biology)
- Pircher H, Rebai N, Groettrup M, et al. Preferential positive selection of V alpha 2+ CD8+ T cells in mouse strains expressing both H-2k and T cell receptor V alpha a haplotypes: determination with a V alpha 2-specific monoclonal antibody. *Eur J Immunol*. 1992; 22(2):399-404. (Immunogen)
- Tomonari K, Fairchild S, Rosenwasser OA. Influence of viral superantigens on V beta- and V alpha-specific positive and negative selection. *Immunol Rev*. 1993; 131:131-168. (Biology)