

Technical Data Sheet

Biotin Rat Anti-Mouse V α 3.2 [b,c] TCR

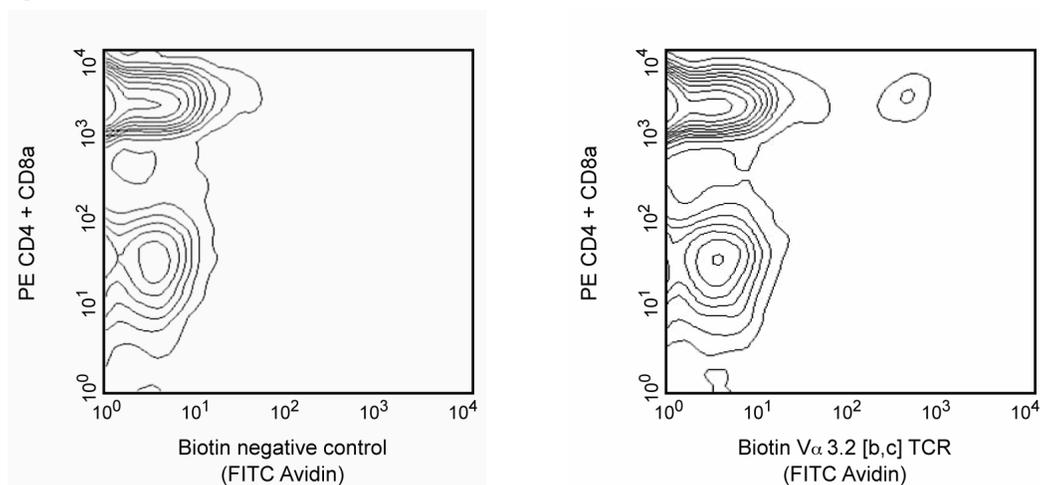
Product Information

Material Number:	553218
Size:	0.25 mg
Concentration:	0.5 mg/ml
Clone:	RR3-16
Immunogen:	Mouse Cytolytic T-Cell Clone OH6
Isotype:	Rat (F344) IgG2b, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The RR3-16 antibody reacts with the V α 3.2 T-Cell Receptor (TCR) of mice having the *b* (e.g., C57BL) and *c* (e.g., SWR, SJL, NZB, NOD) haplotypes of the *Tcra* gene complex, but not with TCR encoded by other members of *Tcra-V3* gene subfamily. RR3-16 antibody does not react with strains having the *a* (e.g., A, AKR, BALB/c, CBA, C3H/He) or *d* (e.g., DBA/1, DBA/2, NZW) *Tcra* haplotypes. In addition, it has been shown that frequencies of V α 3.2+ CD8+ T cells from homozygous H-2k/H-2k mice are moderately higher than those from heterozygous H-2k/H-2d mice, suggesting positive selection by H-2k.

This antibody is routinely tested by flow cytometric analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Two-color analysis of the expression of V α 3.2[b,c] TCR on peripheral lymphocytes. C57BL/6 lymph node leukocytes were simultaneously stained with biotinylated RR3-16 (right panel), PE-conjugated anti-mouse CD4 RM4-5 (Cat. No. 553048/553049), and PE-conjugated anti-mouse CD8a 53-6.7 (Cat. No. 553032/553033) monoclonal antibodies, followed by Avidin-FITC (Cat. No. 554057). Flow cytometry was performed on a BD FACScan™ flow cytometry system.

Preparation and Storage

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

The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was removed.

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

Application Notes

Application

Flow cytometry	Routinely Tested
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Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
553048	PE Rat Anti-Mouse CD4	0.1 mg	RM4-5
553032	PE Rat Anti-Mouse CD8a	0.1 mg	53-6.7
554057	Avidin FITC	0.5 mg	(none)
553987	Biotin Rat IgG2b, κ Isotype Control	0.25 mg	A95-1

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/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.

References

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)

Utsunomiya Y, Bill J, Palmer E, Gollob K, Takagaki Y, Kanagawa O. Analysis of a monoclonal rat antibody directed to the alpha-chain variable region (V alpha 3) of the mouse T cell antigen receptor. *J Immunol.* 1989; 143(8):2602-2608.(Immunogen)

Utsunomiya Y, Bill J, Palmer E, Kanagawa O. Identification of a mouse T-cell antigen receptor alpha-chain polymorphism by a V alpha 3.2 chain-specific monoclonal antibody. *Immunogenetics.* 1991; 33(3):198-201.(Clone-specific)