

Technical Data Sheet

Biotin Rat Anti-Mouse Vβ 6 T-Cell Receptor

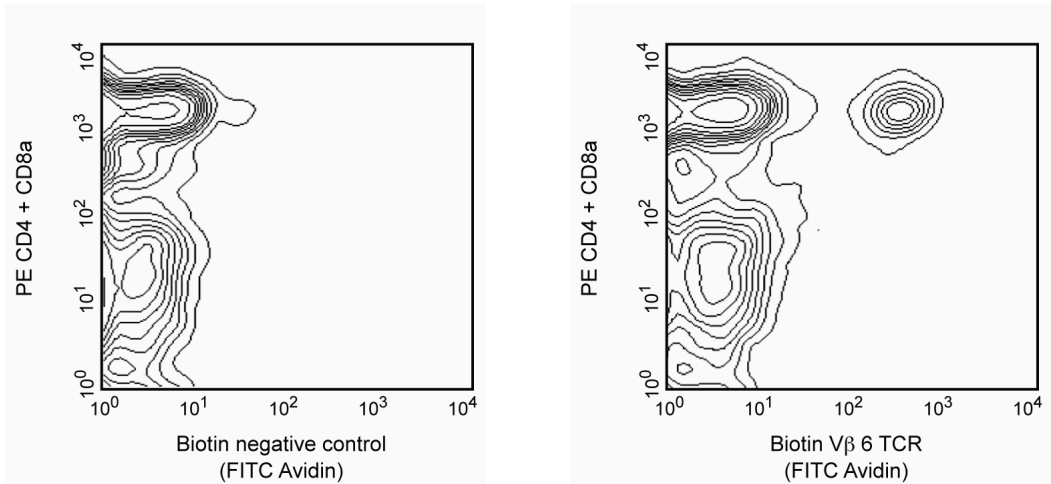
Product Information

Material Number:	553192
Size:	0.25 mg
Concentration:	0.5 mg/ml
Clone:	RR4-7
Immunogen:	C57BL/6 Mouse Helper T-Cell Clone OH11
Isotype:	Rat (F344) IgG2b, λ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The RR4-7 antibody reacts with the Vβ 6 T-Cell Receptor (TCR) of mice having the *a* (e.g., C57BR, C57L, SJL) and *b* (e.g., A, BALB/c, CBA/Ca, C3H/He, C57BL, DBA/1) haplotypes of the *Tcrb* gene complex. The *Tcrb-V6* gene locus is deleted in mice having the *c* (e.g., RIII) haplotype. Vβ 6 TCR-bearing T lymphocytes are clonally eliminated in mice expressing superantigen encoded by *Mtv-7* (*Mls-1[a]*, *Mls[a]*) endogenous provirus (e.g., AKR, CBA/J, C58, DBA/2, NZB), or *Mtv-43* endogenous provirus (e.g., MA/MyJ). Exogenous MMTV-SW, as well as endogenous *Mtv-44*-encoded superantigen (e.g., NZW), also causes incomplete elimination of Vβ 6 TCR-expressing T cells. Plate-bound RR4-7 antibody activates Vβ 6 TCR-bearing T cells, soluble RR4-7 mAb blocks *in vitro* proliferation and cytolytic activities of Vβ 6 TCR-bearing T-cell clones, and injection of the antibody results in *in vivo* depletion of Vβ 6 TCR-bearing T cells.

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 Vβ 6 TCR on peripheral T lymphocytes. C57BL/6 lymph nodes cells were incubated simultaneously with biotin-conjugated RR4-7 (right panel), PE-conjugated RM4-5 (anti-mouse CD4, Cat. No. 553048/553049, both panels), and PE-conjugated 53-6.7 (anti-mouse CD8a, Cat. No. 553032/553033, both panels) monoclonal antibodies, followed by Avidin-FITC (Cat. No. 554057, both panels). Flow cytometry was performed on a FACScan™ (BDIS, San Jose, CA).

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

Catalog Number	Name	Size	Clone
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/pharming/en/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

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