Technical Data Sheet

PE Rat Anti-Mouse Vβ 11 T-Cell Receptor

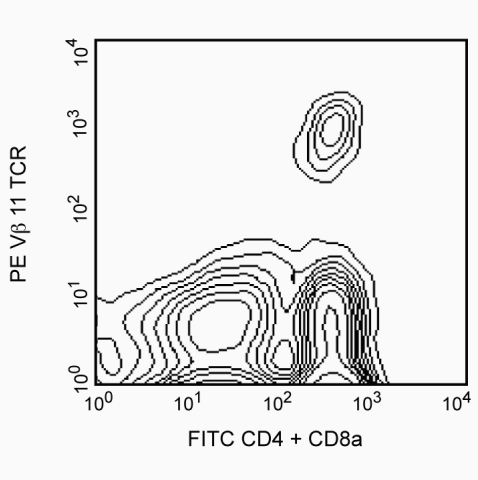
Product Information

Material Number:	**553198**
Size:	0.1 mg
Concentration:	0.2 mg/ml
Clone:	RR3-15
Immunogen:	Mouse Cytolytic T-Cell Clone OH6
Isotype:	Rat (F344) IgG2b, κ
Reactivity:	QC TEsting: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The RR3-15 antibody reacts with the Vβ 11 T-Cell Receptor (TCR) of mice having the b haplotype (e.g., A, C57BL, C58, DBA/1) of the Tcrb gene complex. The Tcrb-V11 gene locus is deleted in mice having the a (e.g., C57BR, C57L, SJL, SWR) and c (e.g., RIII) haplotypes. Vβ TCR-bearing T lymphocytes are clonally eliminated in mice expressing I-E and superantigens encoded by Mtv-9 (Etc-1, Mls[f], Dvb11.2) and/or Mtv-11 (Mls[f], Dvb 11.2) proviruses (e.g., AKR, BALB/c, CBA/J, C3H, DBA/2), and they are incompletely eliminated in mice expressing I-E and Mtv-8 (Mls[f], Dvb 11.1) superantigen (e.g., A). Activation of Vβ 11 TCR-expressing T cells by these determinants is dependent upon presentation by I-E. The bacterial superantigen Staphylococcal enterotoxin A (SEA) also interacts with Vβ 11 TCR, and in vivo exposure to SEA causes activation and subsequent deletion of Vβ TCR-expressing lymphocytes. Plate-bound RR3-15 antibody activates Vβ 11 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 11 TCR on peripheral lymphocytes. *C57BL/6 lymph node cells were incubated simulataneously with PE-conjugated RR3-15, FITC-conjugated RM4-5 (anti-CD4, Cat. No. 553046/553047), and FITC-conjugated 53-6.7 (anti-CD8a, Cat. No. 553030/553031) monoclonal antibodies. 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 R-PE under optimum conditions, and unconjugated antibody and free PE were removed by gel filtration chromatography.

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

Application Notes

Application

Flow cytometry	Routinely Tested

Recommended Assay Procedure:

For flow cytometry of cell suspensions from peripheral lymphoid tissues, it is recommended that multicolor staining be performed to distinguish T lymphocytes from non-T cells.

BD Biosciences

www.bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.259.0187	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

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

Suggested Companion Products

Catalog Number	Name	Size	Clone
553046	FITC Rat Anti-Mouse CD4	0.1 mg	RM4-5
553030	FITC Rat Anti-Mouse CD8a	0.1 mg	53-6.7
553989	PE Rat IgG2b, κ Isotype Control	0.1 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. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/pharmingen/colors.
4. 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

Behlke MA, Chou HS, Huppi K, Loh DY. Murine T-cell receptor mutants with deletions of beta-chain variable region genes. *Proc Natl Acad Sci U S A.* 1986; 83(3):767-771.(Biology)

Bill J, Kanagawa O, Woodland DL, Palmer E. The MHC molecule I-E is necessary but not sufficient for the clonal deletion of V beta 11-bearing T cells. *J Exp Med.* 1989; 169(4):1405-1419.(Immunogen)

Gao EK, Kanagawa O, Sprent J. Capacity of unprimed CD4+ and CD8+ T cells expressing V beta 11 receptors to respond to I-E alloantigens in vivo. *J Exp Med.* 1989; 170(6):1947-1957.(Biology)

Haqqi TM, Banerjee S, Anderson GD, David CS. RIII S/J (H-2r). An inbred mouse strain with a massive deletion of T cell receptor V beta genes. *J Exp Med.* 1989; 169(6):1903-1909.(Biology)

Hodes RJ, Abe R. Mouse endogenous superantigens: Mls and Mls-like determinants encoded by mouse retroviruses. In: Coligan JE, Kruisbeek AM, Margulies DH, Shevach EM, Strober W, ed. *Current Protocols in Immunology.* New York: John Wiley & Sons; 1996:A.1F.1-A.1F.5.(Biology)

Kruisbeek AM, Shevach EM. Proliferative assays for T cell function. In: Coligan J, Kruisbeek AM, Margulies D, Shevach EM, Strober W, ed. *Current Protocols in Immunology.* New York: John Wiley and Sons; 1991:3.12.1-3.12.14.(Biology)

McCormack JE, Callahan JE, Kappler J, Marrack PC. Profound deletion of mature T cells in vivo by chronic exposure to exogenous superantigen. *J Immunol.* 1993; 150(9):3785-3792.(Biology)

Sugihara S, Fujiwara H, Shearer GM. Autoimmune thyroiditis induced in mice depleted of particular T cell subsets. Characterization of thyroiditis-inducing T cell lines and clones derived from thyroid lesions. *J Immunol.* 1993; 150(2):683-694.(Biology)