Technical Data Sheet

FITC Mouse Anti-Mouse Vβ 12 T-Cell Receptor

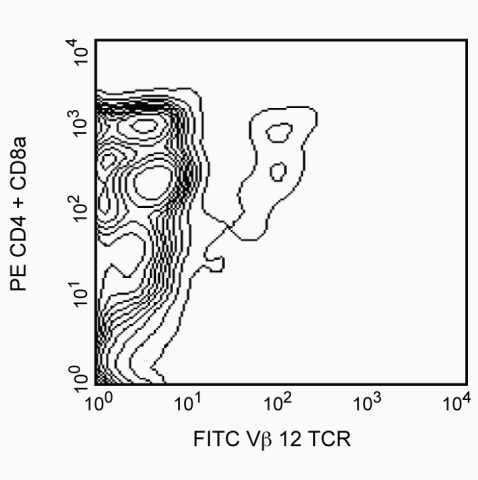
Product Information

Material Number:	**553300**
Size:	0.25 mg
Concentration:	0.5 mg/ml
Clone:	MR11-1
Immunogen:	Not Reported
Isotype:	Mouse (SWR) IgG1, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The MR11-1 antibody reacts with the Vβ 12 T-cell Receptor (TCR) of mice having the *b* haplotype (e.g., C57BL, C58, DBA/1) of the *Tcrb* gene complex1 The *Tcrb-V12* gene locus is deleted in mice having the *a* (e.g., C57BR, C57L, SJL, SWR) or *c* (e.g., RIII) haplotype. Vβ 12 TCR-bearing T lymphocytes are clonally eliminated in mice expressing I-E and superantigens encoded by *Mtv-8 (Mlsf, Dvb11.1), Mtv-9 (Etc-1, Mlsf, Dvb11.2)* and/or *Mtv-11 (Mlsf, Dvb11.3)* proviruses (eg, A, AKR, BALB/c, CBA/J, C3H, DBA/2). Activation of Vβ 12 TCR-expressing T cells by these determinants is dependent upon presentation by I-E. C57BL/6 spleen T cells expressing Vβ 12 TCR are among the predominant responders to MAIDS virus superantigen.

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 12 TCR on peripheral lymphocytes. *C57BL/6 lymph node cells were incubated simultaneously with FITC-conjugated MR11-1, 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. 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 FITC under optimum conditions, and unreacted FITC was removed.
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
553048	PE Rat Anti-Mouse CD4	0.1 mg	RM4-5
553032	PE Rat Anti-Mouse CD8a	0.1 mg	53-6.7
550616	FITC Mouse IgG1, κ Isotype Control	0.25 mg	MOPC-31C

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

Abe R, Kanagawa O, Sheard MA, Malissen B, Foo-Phillips M. Characterization of a new minor lymphocyte stimulatory system. I. Cluster of self antigens recognized by "I-E-reactive" V beta s, V beta 5, V beta 11, and V beta 12 T cell receptors for antigen. *J Immunol.* 1991; 147(3):739-749.(Biology)

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)

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)

Heise M, Chow K, Kanagawa O. Interaction between T cells and murine acquired immunodeficiency virus superantigen: effect of second signal on T cell reactivity to the MAIDS virus superantigen. *Int Immunol.* 1993; 5(6):583-590.(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)

Vacchio MS, Hodes RJ. Selective decreases in T cell receptor V beta expression. Decreased expression of specific V beta families is associated with expression of multiple MHC and non-MHC gene products. *J Exp Med.* 1989; 170(4):1335-1346.(Biology)

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/**