Technical Data Sheet

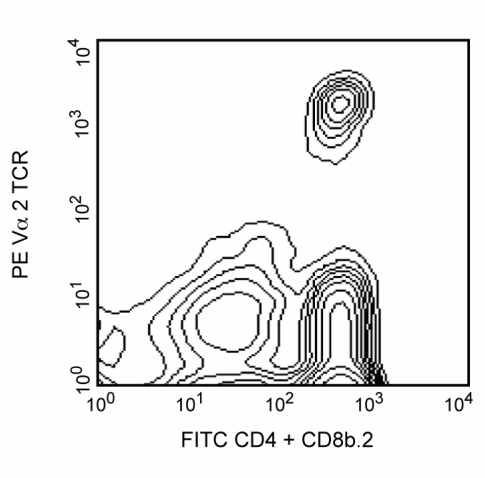
PE Rat Anti-Mouse Vα2 TCR

Product Information

Material Number:	**553289**
Size:	0.1 mg
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 ≤0.09% sodium azide.

Description

The B20.1 antibody reacts with most members of the Vα2 T-cell Receptor (TCR) subfamily in mice having the *a, b,* and *c* haplotypes of the *Tcrb* gene complex. B20.1 antibody may cross-react with Vδ8 TCR, which shares >90% sequence homology with Vα2 TCR. Levels of B20.1+ T cells appear to be influenced by Vα haplotypes. Moreover, the frequencies of Vα2+ CD8+ and CD4+ T cells are influenced by H-2 haplotypes.



Two-color analysis of the expression of Vα2 TCR on peripheral lymphocytes. *BALB/c lymph nodes cells were incubated simultaneously with PE-conjugated B20.1, FITC-conjugated RM4-5 (anti-CD4, Cat. No. 553046/553047), and FITC-conjugated 53-5.8 (anti-CD8b.2, Cat. No. 553040) 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.

Suggested Companion Products

Catalog Number	Name	Size	Clone
557076	PE Rat IgG2a, λ Isotype Control	0.1 mg	B39-4

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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

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. (Clone-specific)

Pircher H, Rebaï 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)