

Technical Data Sheet

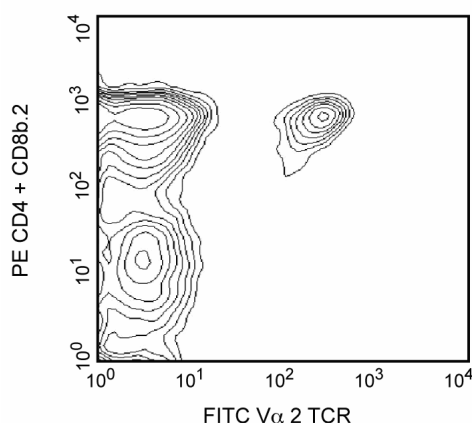
FITC Rat Anti-Mouse V α 2 TCR

Product Information

| | |
|------------------|---|
| Material Number: | 562085 |
| Size: | 25 μ g |
| Concentration: | 0.5 mg/ml |
| Clone: | B20.1 |
| Immunogen: | Soluble $\alpha\beta$ TCR from mouse cytotoxic T-cell clone KB5-C20 |
| Isotype: | Rat (LOU) IgG2a, λ |
| Reactivity: | QC Testing: Mouse |
| Storage Buffer: | Aqueous buffered solution containing $\leq 0.09\%$ sodium azide. |

Description

The B20.1 monoclonal antibody specifically binds to most members of the V α 2 T-cell Receptor (TCR) subfamily in mice having the *a*, *b*, and *c* haplotypes of the *Tcrb* gene complex. B20.1 antibody may crossreact with V δ 8 TCR, which shares >90% sequence homology with V α 2 TCR. Levels of B20.1+ T cells appear to be influenced by V α haplotypes. Moreover, the frequencies of V α 2+ CD8+ and CD4+ T cells are influenced by H-2 haplotypes.



Two-color analysis of the expression of V α 2 TCR on peripheral lymphocytes. BALB/c lymph node cells were incubated simultaneously with FITC Rat anti-Mouse V α 2 TCR, PE Rat anti-Mouse CD4 (Cat. No. 561829/557308), and PE Rat anti-Mouse CD8b.2 (Cat. No. 553041) monoclonal antibodies. Flow cytometry was performed on a BD FACScan™ flow cytometer (BDIS, San Jose, CA).

Preparation and Storage

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

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.

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 |
|----------------|---|------------|--------|
| 557077 | FITC Rat IgG2a, λ Isotype Control | 0.25 mg | B39-4 |
| 554656 | Stain Buffer (FBS) | 500 ml | (none) |
| 561829 | PE Rat Anti-Mouse CD4 | 25 μ g | GK1.5 |
| 557308 | PE Rat Anti-Mouse CD4 | 0.1 mg | GK1.5 |
| 553041 | PE Rat Anti-Mouse CD8b.2 | 0.1 mg | 53-5.8 |

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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.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
5. An isotype control should be used at the same concentration as the antibody of interest.

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, Rebai 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)