

## Technical Data Sheet

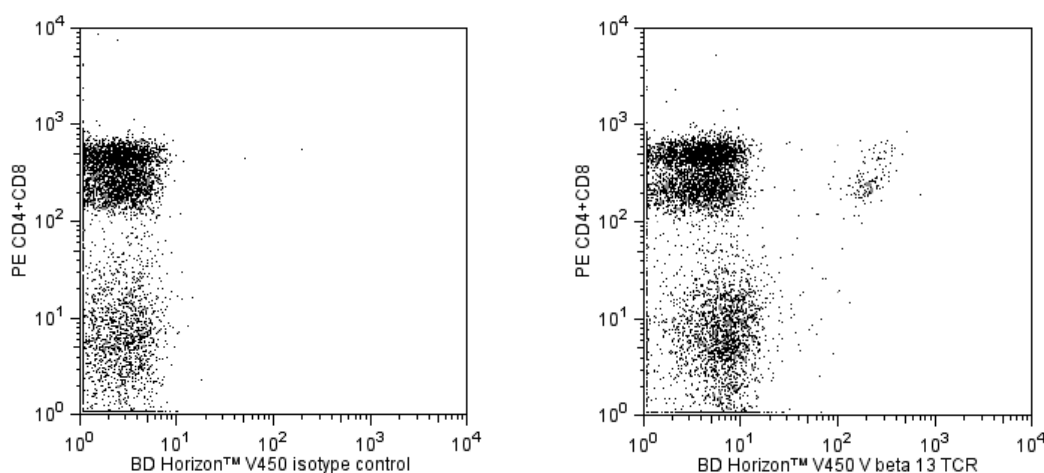
**V450 Mouse Anti-Mouse Vβ 13 TCR****Product Information**

|                         |  |
|-------------------------|--|
| <b>Material Number:</b> | <b>561539</b>  |
| <b>Alternate Name:</b>  | TCR V beta 13; TCR Vβ 13; TCR Vβ13; Vβ 13 T-cell Receptor                        |
| <b>Size:</b>            | 50 µg  |
| <b>Concentration:</b>   | 0.2 mg/ml  |
| <b>Clone:</b>           | MR12-3   |
| <b>Immunogen:</b>       | Not reported   |
| <b>Isotype:</b>         | Mouse (C57BR) IgG1, κ  |
| <b>Reactivity:</b>      | QC Testing: Mouse  |
| <b>Storage Buffer:</b>  | Aqueous buffered solution containing protein stabilizer and ≤0.09% sodium azide. |

**Description**

The MR12-3 monoclonal antibody specifically binds to the Vβ 13 T-cell Receptor (TCR) of mice having the *b* haplotype (e.g., A, AKR, BALB/c, CBA, C3H/He, C57BL, C58, DBA/1, DBA/2) of the *Tcrb* gene complex. The *Tcrb-V13* gene locus is deleted in mice having the *a* (e.g., C57BR, C57L, SJL, SWR) or *c* (e.g., RIII) haplotype.

The antibody is conjugated to BD Horizon™ V450, which has been developed for use in multicolor flow cytometry experiments and is available exclusively from BD Biosciences. It is excited by the Violet laser Ex max of 406 nm and has an Em Max at 450 nm. Conjugates with BD Horizon™ V450 can be used in place of Pacific Blue™ conjugates.



**Multicolor flow cytometric analysis of Vβ 13 TCR expressed on mouse lymph node T cells.** C57BL/6 mouse lymph node cells were stained with PE Rat Anti-Mouse CD4 antibody (Cat. No. 553048/553049) and PE Rat Anti-Mouse CD8 (Cat. No. 553032/553033) antibodies and either BD Horizon™ V450 mIgG1, κ Isotype Control (Cat. No. 560373, Left Panel) or a BD Horizon™ V450 Mouse Anti-Mouse Vβ 13 TCR antibody (Cat. No. 561539, Right Panel). Two-color flow cytometric dot plots showing the expression of Vβ 13 TCR (or Ig Isotype Control staining) versus CD4 and CD8 were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometry was performed using a BD™ LSR II Flow Cytometry System.

**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 BD Horizon™ V450 under optimum conditions, and unreacted BD Horizon™ V450 was removed.

**Application Notes****Application**

|                |                  |
|----------------|------------------|
| Flow cytometry | Routinely Tested |
|----------------|------------------|

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## Suggested Companion Products

| <u>Catalog Number</u> | <u>Name</u>                               | <u>Size</u> | <u>Clone</u> |
|-----------------------|---|-------------|--------------|
| 560373                | V450 Mouse IgG1, $\kappa$ Isotype Control | 0.1 mg      | MOPC-21      |
| 554656                | Stain Buffer (FBS)                        | 500 ml      | (none)       |
| 553048                | PE Rat Anti-Mouse CD4                     | 0.1 mg      | RM4-5        |
| 553049                | PE Rat Anti-Mouse CD4                     | 0.2 mg      | RM4-5        |
| 553032                | PE Rat Anti-Mouse CD8a                    | 0.1 mg      | 53-6.7       |
| 553033                | PE Rat Anti-Mouse CD8a                    | 0.2 mg      | 53-6.7       |

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Please refer to [www.bdbiosciences.com/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/protocols) for technical protocols.
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.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at [www.bdbiosciences.com/colors](http://www.bdbiosciences.com/colors).
6. BD Horizon™ V450 has a maximum absorption of 406 nm and maximum emission of 450 nm. Before staining with this reagent, please confirm that your flow cytometer is capable of exciting the fluorochrome and discriminating the resulting fluorescence.
7. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.

## 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)

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)