

# Anti-Mouse V beta 9 TCR eFluor® 450

Catalog Number: 48-5823

RUO: For Research Use Only. Not for use in diagnostic procedures.



## Description

This MR10-2 monoclonal antibody reacts with the mouse T-cell receptor (TCR) V beta 9 chain. Composed of an a and ß chain, TCR specificity is typically determined by Va, Ja, Vb, Db, and Jb gene rearrangement. The MR10-2 antibody recognizes the V beta 9 chain on T cells from mouse strains with the b haplotype, including BALB/c, CBA/Ca, C3H/He, and C57BL. This gene is deleted in mice bearing the a (e.g., C57BR, C57L, SJL, and SWR) or c (e.g, RIII) haplotypes. T cells expressing V beta 9 are also deleted in mice expressing the minor lymphocyte stimulating (MIs)-1a antigen.

The MR10-2 antibody has been reported to activate V beta 9+ T cells.

## **Applications Reported**

Anti-Mouse V beta 9 TCR eFluor® 450 has been reported for use in flow cytometric analysis.

## **Applications Tested**

Anti-Mouse V beta 9 TCR eFluor® 450 has been tested by flow cytometric analysis of mouse lymph node. This can be used at less than or equal to 0.5  $\mu$ g per test. A test is defined as the amount ( $\mu$ g) of antibody that will stain a cell sample in a final volume of 100  $\mu$ L. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

# eFluor® 450 is a replacement for Pacific Blue®. eFluor® 450 emits at 456 nm and is excited with the Violet laser (405 nm). Please make sure that your instrument is capable of detecting this fluorochome.

#### References

Joshi PS, Liu JQ, Wang Y, Chang X, Richards J, Assarsson E, Shi FD, Ljunggren HG, Bai XF. Cytokine-induced killer T cells kill immature dendritic cells by TCR-independent and perforin-dependent mechanisms. J Leukoc Biol. 2006 Dec;80(6):1345-53. (**MR10-2**, FC)

Kanagawa O, Shimizu J, Vaupel BA. Thymic and postthymic regulation of diabetogenic CD8 T cell development in TCR transgenic nonobese diabetic (NOD) mice. J Immunol. 2000 May 15;164(10):5466-73. **MR10-2**, FC)



Page 2 of 2

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Utsunomiya Y, Kosaka H, Kanagawa O. Differential reactivity of V beta 9 T cells to minor lymphocyte stimulating antigen in vitro and in vivo. Eur J Immunol. 1991 Apr;21(4):1007-11. (**MR10-2**, FC, FA (activating))

# **Related Products**

17-0031 Anti-Mouse CD3e APC (145-2C11) 48-4714 Mouse IgG1 K Isotype Control eFluor® 450 (P3.6.2.8.1)