

Anti-Mouse TCR beta BG Violet 450

Catalog Number :89612-40

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

Product Information

Clone: H57-597

Format/Conjugate: BG Violet 450

Concentration: 0.2 mg/mL

Reactivity: Mouse

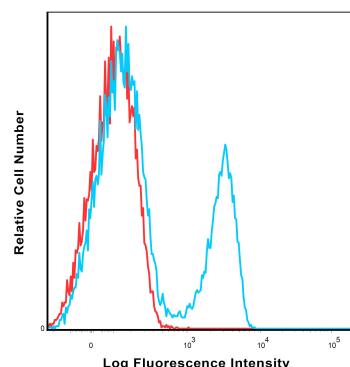
Laser: Violet (405nm)

Peak Emission: 450nm

Peak Excitation: 404nm

Filter: 450/50

Brightness (1=dim,5=brightest): 2



C57Bl/6 splenocytes were stained with BG Violet 450 H57-597 with relevant isotype control in Red.

Isotype: Armenian Hamster IgG

Formulation: Phosphate-buffered aqueous solution, $\leq 0.09\%$ Sodium azide, may contain carrier protein/stabilizer, pH7.2.

Storage: Product should be kept at 2-8°C and protected from prolonged exposure to light.

Applications: FC

Description

The H57-597 monoclonal antibody is specific for the beta chain of the mouse T cell Receptor (TCR). The crosslinking induces activation and proliferation of T cells, as a plate-bound or a soluble H57-597, or the plate-bound antibody can induce apoptosis, based on assay conditions. The beta chain of the TCR can combine with the alpha chain of the receptor to produce the alpha-beta TCR, which is expressed by the NKT cells, by the NK1.1+ thymocytes and most of the T cells. The beta chain does not react with the gamma-delta TCR-bearing cells, expressed by a small number of T cells.

This antibody can be used as a phenotypic marker for the TCR beta expressing cells or for the functional purpose of TCR-mediated cell activation or apoptosis.

BG Violet 450 conjugate is an alternative to the Pacific Blue, eFluor 450, or BD Horizon V450 dyes. It is excited by the violet (405 nm) laser, with a peak emission of 450nm.

Preparation & Storage

The product should be stored undiluted at 4°C and should be protected from prolonged exposure to light. Do not freeze. The monoclonal antibody was purified utilizing affinity chromatography and unreacted dye was removed from the product.

Application Notes

The antibody has been analyzed for quality through the flow cytometric analysis of the relevant cell type. For flow cytometric staining, the suggested use of this reagent is ≤ 0.25 ug per million cells in 100 μ l volume. It is recommended that the reagent be titrated for optimal performance for each application.

References

1. Kubo, R. T., Born, W., Kappler, J. W., Marrack, P., Pigeon, M. (1989). Characterization of a monoclonal antibody which detects all murine alpha beta T cell receptors.;*The Journal of Immunology*,;142(8), 2736-2742.
2. Gascoigne, N. R. (1990). Transport and secretion of truncated T cell receptor beta-chain occurs in the absence of association with CD3.;*Journal of Biological Chemistry*,;265(16), 9296-9301.
3. Kruisbeek, A. M., Shevach, E., Thornton, A. M. (2004). Proliferative assays for T cell function.;*Current Protocols in Immunology*, 3-12.
4. Saint-Ruf, C., Panigada, M., Azogui, O., Debey, P., von Boehmer, H., Grassi, F. (2000). Different initiation of pre-TCR and $\gamma\delta$ TCR signalling.;*Nature*,406(6795), 524-527.