

## Anti-Mouse TCR beta FITC

Catalogue Number : 89612-50

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

### Product Information

**Clone:** H57-597

**Format/Conjugate:** FITC

**Concentration:** 0.5 mg/mL

**Reactivity:** Mouse

**Laser:** Blue (488nm)

**Peak Emission:** 520nm

**Peak Excitation:** 494nm

**Filter:** 530/30

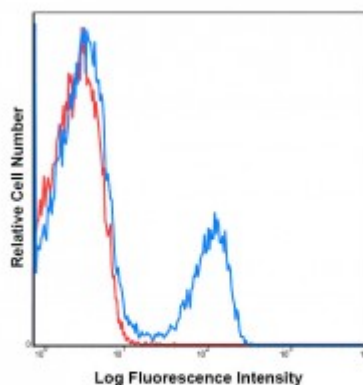
**Brightness (1=dim,5=brightest):** 3

**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



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

### 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.

### 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  $\leq 0.25$  ug per million cells in 100  $\mu$ 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.