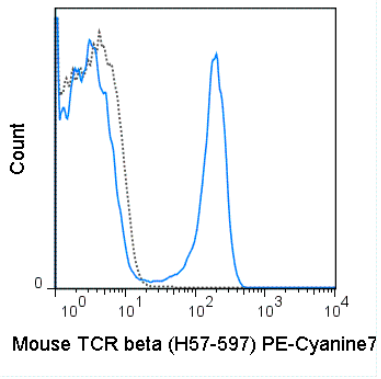
TECHNICAL DATA SHEET

PE-Cyanine7 Anti-Mouse TCR beta (H57-597)

Catalog Number: 60-5961

PRODUCT INFORMATION

Contents:	PE-Cyanine7 Anti-Mouse TCR beta (H57-597)
Isotype:	Armenian Hamster IgG
Concentration:	0.2 mg/mL
Clone:	H57-597
Reactivity:	Mouse
Use By:	6 months from date of receipt
Storage Conditions:	2-8°C protected from light
Formulation:	10 mM NaH_2PO_4, 150 mM NaCl, 0.09% NaN_3, 0.1% gelatin, pH7.2



C57Bl/6 splenocytes were stained with 0.25 ug PE-Cyanine7 Anti-Mouse TCR beta (60-5961) (solid line) or 0.25 ug PE-Cyanine7 Armenian hamster IgG isotype control (dashed line).

DESCRIPTION

The H57-597 antibody is specific for the beta chain of the mouse T cell Receptor (TCR). This cell surface protein combines with a second protein chain (alpha chain) to form the alpha-beta TCR that is expressed by NK1.1+ thymocytes, NKT cells, and the majority of peripheral T cells. A small number of T cells may express an alternative heteromer of gamma/delta protein chains, known as the g/d TCR. These receptors participate in a complex with CD3, and with the co-receptors CD4 or CD8, to recognize and respond to antigens bound to MHC molecules on antigen-presenting cells. Such interactions promote T cell receptor signaling (T cell activation) and can result in a number of cellular responses including proliferation, differentiation, production of cytokines or activation-induced cell death.The H57-597 antibody is used as a phenotypic marker for T cells expressing the alpha-beta TCR. It is also widely used to cross-link surface TCR and thereby mimic TCR-mediated cell activation or induction of apoptosis. The antibody does not cross-react with cells expressing the g/d TCR.

PREPARATION & STORAGE

This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation. It is recommended to store the product undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.

APPLICATION NOTES

This antibody preparation has been quality-tested for flow cytometry using mouse spleen cells, or an appropriate cell type (where indicated). Please refer to the figure legend for the optimal concentration used to stain the tissue shown. We recommend titrating the antibody under your specific conditions to determine the optimal concentration of antibody needed in your experimental system.

REFERENCES

Berent-Maoz B, Montecino-Rodriguez E, Signer RAJ, and Dorshkind K. 2012. Blood. 199:5715-5721. (Flow cytometry)Wang D, Qin H, Du W, Shen Y-W, Lee W-H, Riggs AD, and Liu C-P. 2012. Proc. Natl. Acad. Sci. 109:9493-9498. (in vitro induction of apoptosis)O'Brian RL, Taylor MA, Hartley J, Nuhsbaum T, Dugan S, Lahmers K, Aydintug MK, Wands JM, Roark CL, and Born WK. 2009. Invest. Ophthalmol. Vis. Sci. 50: 3266-3274. (Immunofluorescence microscopy – OCT embedded frozen tissue)Matei IR, Gladdy RA, Nutter LMJ, Canty A, Guidos CJ, and Danska JS. 2007. Blood. 109:1887-1896. (Immunoprecipitation)Harada N, Shimada M, Okano S, Suehiro T, Soejima Y, Tomita Y, and Maehara Y. 2004. J. Immunol. 173:6635-6644. (in vivo T cell depletion)Kubo RT, Born W, Kappler JW, Marrack P, and Pigeon M. 1989. J. Immunol. 142: 2736-2742. (Origination of clone, Immunoprecipitation, in vitro activation)

Tonbo Biosciences tests all antibodies by flow cytometry. Citations are provided as a resource for additional applications that have not been validated by Tonbo Biosciences. Please choose the appropriate format for each application and consult Materials and Methods sections for additional details about the use of any product in these publications.