TECHNICAL DATA SHEET

Purified Anti-Mouse TCR beta (H57-597)

Catalog Number: 70-5961

PRODUCT INFORMATION

Contents: Purified Anti-Mouse TCR beta (H57-597)

Isotype: Armenian Hamster IgG

Concentration: 0.5 mg/mL

Clone: H57-597

Reactivity: Mouse

Formulation: 10 mM NaH2PO4, 150 mM NaCl, 0.09% NaN3, pH7.2

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 and delta protein chains, known as the gamma-delta 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 gamma-delta TCR.

PREPARATION & STORAGE

This monoclonal antibody preparation was purified from tissue culture supernatant via affinity chromatography. For In Vivo Ready™ (IVR) products, each preparation is also evaluated for endotoxin levels using the LAL assay. It is recommended to store the product undiluted at 4°C. Do not freeze.

APPLICATION NOTES

This purified format is guaranteed to be >90% pure as determined by SDS-PAGE analysis. Citations are provided as a convenience to you - please consult Materials and Methods sections for additional details about the use of any product in these publications.

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)

NOTE: Please choose the appropriate format for each application. Citations are provided as a convenience to you; please consult Materials and Methods sections for additional details about the use of any product in these publications.