

TECHNICAL DATA SHEET

Biotin Anti-Mouse IL-2 (JES6-5H4)

Catalog Number: 30-7021

PRODUCT INFORMATION

Contents: Biotin Anti-Mouse IL-2 (JES6-5H4)

Isotype: Rat IgG2b, kappa

Concentration: 0.5 mg/mL

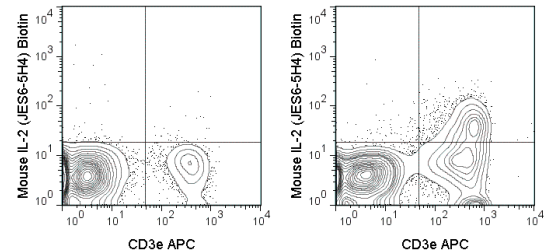
Clone: JES6-5H4

Reactivity: Mouse

Use By: 12 months from date of receipt

Storage Conditions: 2-8°C protected from light

Formulation: 10 mM NaH₂PO₄, 150 mM NaCl, 0.09% NaN₃, pH 7.2



C57Bl/6 splenocytes were stimulated with PMA and Ionomycin (right panel) or unstimulated (left panel) and then stained with APC Anti-Mouse CD3e (20-0031), followed by intracellular staining with 0.06 ug Biotin Anti-Mouse IL-2 (30-7021) and Streptavidin PE.

DESCRIPTION

The JES6-5H4 antibody binds to mouse Interleukin-2 (IL-2), a 17 kDa cytokine that is secreted by activated T cells. This cytokine acts as an autocrine stimulatory factor for T cell proliferation, differentiation and survival, as well as being an effective activator of B cells and inducer of NK cell cytotoxic functions. IL-2 plays a key modulatory role in the differentiation of T cells toward either Th17 or T regulatory (Treg) cell types and is important for Treg cell function. The IL-2 receptor (IL-2R) is a complex consisting of an IL-2R alpha chain (CD25), along with the IL-2R beta chain (CD122) and the common gamma chain (CD132). IL-2 may also bind with low affinity to the T cell surface protein CD25 alone, although this interaction does not induce cell signaling. The JES6-5H4 antibody is extensively used for intracellular detection of IL-2 by flow cytometry, for detection of soluble cytokine in ELISA, and as a neutralizing reagent in vitro and in vivo.

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

Attridge K, Wang CJ, Wardzinski L, Kenefleck R, Chamberlain JL, Manzotti C, Kopf M, and Walker LSK. 2012. *Blood*. 119: 4656-4664. (Flow cytometry) Helbig C, Gentek R, Backer RA, de Souza Y, Derks IAM, Eldering E, Wagner K, Jankovic D, Gridley T, Moerland PD, Flavell RA, and Amsen D. 2012. *Proc. Natl. Acad. Sci.* 109: 9041-9046. (ELISA – detection) Chen Q, Kiim YC, Laurence A, Punkosdy GA, and Shevach EM. 2011. *J. Immunol.* 186: 6329-6337. (in vivo blocking) Weber KS, Hildner K, Murphy KM and Allen PM. 2010. *J. Immunol.* 185: 2836-2846. (ELISA) Wang C, Morley SC, Donermeyer D, Peng I, Lee WP, Devoss J, Damilenko DM, Lin Z, Zhang J, Zhou J, Allen PM, and Brown EJ. 2010. *J. Immunol.* 185: 7487-7497. (Immunocytochemistry/Immunofluorescence microscopy) Cardona AE and Teale JM. 2002. *J. Immunol.* 169: 3163-3171. (Immunohistochemistry – frozen tissue) Woo AL, Gildea LA, Tack LM, Miller ML, Spicer A, Millhorn DE, Finkelman FD, Dassetz DJ, and Shull GE. 2002. *J. Biol. Chem.* 277: 49036-49046. (in vivo blocking)

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.

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