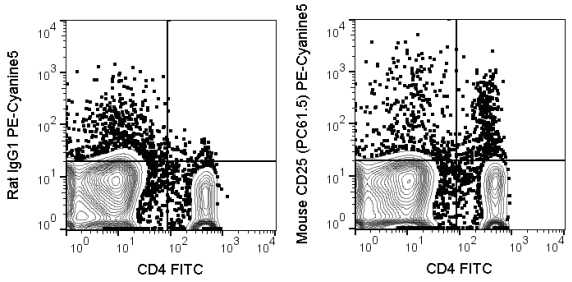
TECHNICAL DATA SHEET

PE-Cyanine5 Anti-Mouse CD25 (PC61.5)

Catalog Number: 55-0251

PRODUCT INFORMATION

Contents:	PE-Cyanine5 Anti-Mouse CD25 (PC61.5)
Isotype:	Rat IgG1, lambda
Concentration:	0.2 mg/mL
Clone:	PC61.5
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 FITC Anti-Mouse CD4 (35-0041) and 0.25 ug PE-Cyanine5 Anti-Mouse CD25 (55-0251) (right panel) or 0.25 ug PE-Cyanine5 Rat IgG1 isotype control (left panel).

DESCRIPTION

The PC61.5 antibody is specific for mouse CD25, a 55 kDa surface protein also known as the Interleukin-2 Receptor alpha chain, or IL-2R alpha. CD25 may bind IL-2 by itself, although with low affinity and without induction of cell signaling. CD25 is also expressed within a high-affinity complex, along with the IL-2R beta chain (CD122) and the common gamma chain (CD132), to form a signaling receptor complex. Expression of CD25 varies during developmental stages of T and B cells, is induced on activated mature T and B cells, and is present on subsets of dendritic cells. CD25 signaling as part of the IL-2 receptor complex triggers T cell activation and proliferation, as well as modulating the differentiation and function of Th17 cells, T regulatory (Treg) cells, and dendritic cells.The PC61.5 antibody is used as a marker for T cells, B cells and dendritic cell subsets. Expression of CD25, CD4 and the transcription factor Foxp3 is regarded as a phenotypic signature for Treg cells. As such, this antibody is widely used to distinguish Treg cells from naive or conventional T cells which are CD25-. This clone has also been reported for depletion of Treg cells in vivo (use format suitable for functional assays).

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

Liang D, Zuo A, Shao H, Born WK, O'Brian R, Kaplan HJ, and Sun D. 2012. J. Immunol. 188: 5785-5791. (in vivo blocking)Yu P, Steel JC, Zhang M, Morris JC, Waitz R, Fasso M, Allison JP, and Waldmann TA. 2012. Proc. Natl. Acad. Sci. 109:6187-6192. (in vivo Treg depletion)Billiard F, Lobry C, Darrasse-Jeze G, Waite J, Liu et al. 2012. Blood. 119: 4656-4664. (in vivo Treg depletion)Tang S, Moore ML, Grayson JM and Dubey P. 2012. Cancer Res. 72: 1975-1985. (in vivo Treg depletion)Lee L-F, Logronio K, Tu GH, Zhai W, Ni I, Mei L, Dilley J, Yu J, et al. 2012. Proc. Natl. Acad. Sci. 10.1073. (Flow cytometry).10F.9G2, J43, PC61 Koehn BH, Ford ML, Ferrer IR, Borom K, Gangappa S, Kirk AD, and Larsen CP. 2008. J. Immunol. 181:5313-5322. (in vivo blocking)Leithauser F, Meinhardt-Krajina T, Fink K, Wotschke B, Moller P and Reimann J. 2006. Am. J. Pathol. 168(6): 1898-1909. (Immunohistochemistry – frozen tissue)Hashimoto N, Nabholz M, MacDonald HR, and Zubler RH. 1986. Eur. J. Immunol. 16(3): 317-320. (Blocking)Ceredig R, Lowenthal JW, Nabholz M, and MacDonald R. 1985. Nature. 314:98-100 (Immunohistochemistry)Lowenthal JW, Zulber RH, Nabholz M, and MacDonald HR. 1985. Nature. 315(6021): 669-672. (Immunoprecipitation, 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.