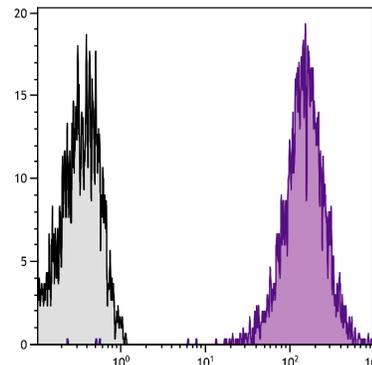




Rat Anti-Mouse CD25

Cat. No.	Format	Size
1595-01	Purified (UNLB)	0.5 mg
1595-02	Fluorescein (FITC)	0.5 mg
1595-02S	Fluorescein (FITC)	0.1 mg
1595-08	Biotin (BIOT)	0.5 mg
1595-09	R-phycoerythrin (PE)	0.1 mg
1595-09L	R-phycoerythrin (PE)	0.2 mg
1595-11	Allophycocyanin (APC)	0.1 mg
1595-13	Spectral Red® (SPRD)	0.1 mg
1595-14	Low Endotoxin, Azide-Free, (LE/AF)	0.5 mg
1595-17	R-phycoerythrin-Cyanine 7 (PE/CY7)	0.1 mg



C57BL/6 mouse cytotoxic T lymphocyte cell line CTLL-2 was stained with Rat Anti-Mouse CD25-PE/CY7 (SB Cat. No. 1595-17).

Overview

Clone	7D4
Isotype	Rat (Lewis) IgM κ
Immunogen	IL-2 dependent BALB/c helper T cell clone, HT2
Specificity	Mouse CD25; Mr 55 kDa
Alternate Name(s)	IL-2R α , p55, IL-2 receptor α chain, Ly-43, Tac, IL-2-RA

Description

The IL-2 receptor (IL-2R) exists in three alternative forms made up from the individual components of CD25, CD122, and CD132. CD25 represents the low affinity α chain of the IL-2R, a type I transmembrane glycoprotein containing two CCP domains. It is rich in O-linked carbohydrates and has a short cytoplasmic tail. CD25 is expressed on activated T cells, B cells, NK cells, and monocytes of all mouse strains tested. It is transiently expressed at a low level during B cell development in bone marrow on the CD45R/B220^{low} TdT⁻ sIg⁻ pre-B II and CD45R/B220^{low} TdT⁻ sIgM⁺sIgD⁻ immature B cells, but not on the CD45R/B220^{low} TdT⁺ sIg⁻ pro-B/pre-B I stage nor on CD45R/B220^{high} TdT⁻ sIgM⁺sIgD⁺ mature B cells. CD25 is expressed at a higher level during very early T-cell development in fetal and adult thymus. The 7D4 monoclonal antibody reacts with an epitope between amino acids 125 and 212 that is distinct from that recognized by the monoclonal antibody 3C7 (SB Cat. No. 1600). While the monoclonal antibody 7D4 does not block the binding of IL-2 to CD25, when used in combination with the monoclonal antibody 3C7 it results in higher levels of inhibition of IL-2-driven proliferation than either of these two monoclonal antibodies alone.

Applications

FC – Quality tested ^{1,6-11}
 IHC-FS – Reported in literature ⁴
 IP – Reported in literature ^{1,2}
 Neut – Reported in literature ³
 Block – Reported in literature ^{1,2,13}
 Depletion – Reported in literature ⁵
 CMCD – Reported in literature ¹²

Working Dilutions

Flow Cytometry	FITC and BIOT conjugates	$\leq 1 \mu\text{g}/10^6$ cells
	PE, APC, SPRD, and PE/CY7 conjugates	$\leq 0.2 \mu\text{g}/10^6$ cells
For flow cytometry, the suggested use of these reagents is in a final volume of 100 μL		

Other Applications Since applications vary, you should determine the optimum working dilution for the product that is appropriate for your specific need.

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Corporate Offices: 160 Oxmoor Blvd • Birmingham, AL 35209 • USA Mailing Address: P.O. Box 26221 • Birmingham, AL 35260 • USA

Tel: 205.945.1774 • U.S. and Canada: 800.722.2255 • Fax: 205.945.8768

Email: info@southernbiotech.com • Website: www.southernbiotech.com

Handling and Storage

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of borate buffered saline, pH 8.2. *No preservatives or amine-containing buffer salts added.* Store at 2-8°C.
- The fluorescein (FITC) conjugate is supplied as 0.5 mg or 0.1 mg in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- The R-phycoerythrin (PE) conjugate is supplied as 0.1 mg in 1.0 mL or 0.2 mg in 2.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The allophycocyanin (APC) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The Spectral Red® (SPRD) and R-phycoerythrin-Cyanine 7 (PE/CY7) conjugates are supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The low endotoxin, azide-free (LE/AF) antibody is supplied as 0.5 mg purified immunoglobulin in 1.0 mL of PBS. Contains no preservative; handle under aseptic conditions. Store at 2-8°C or aliquot into smaller volumes and store at -20°C. Avoid multiple freeze / thaw cycles.
- Protect fluorochrome-conjugated forms from light. Reagents are stable for the period shown on the label if stored as directed.

Warning

Some reagents contain sodium azide. Please refer to product specific SDS.

References

1. Malek TR, Robb RJ, Shevach EM. Identification and initial characterization of a rat monoclonal antibody reactive with the murine interleukin 2 receptor-ligand complex. *Proc Natl Acad Sci USA.* 1983;80:5694-8. (Immunogen, Block, IP, FC)
2. Ortega G, Robb RJ, Shevach EM, Malek TR. The murine IL 2 receptor. I. Monoclonal antibodies that define distinct functional epitopes on activated T cells and react with activated B cells. *J Immunol.* 1984;133:1970-5. (Block, IP, FC)
3. de Goër de Herve MG, Jaafoura S, Vallée M, Taoufik Y. FoxP3⁺ regulatory CD4 T cells control the generation of functional CD8 memory. *Nat Commun.* 2012;3:986. (Neut)
4. Benz C, Heinzel K, Bleul CC. Homing of immature thymocytes to the subcapsular microenvironment within the thymus is not an absolute requirement for T cell development. *Eur J Immunol.* 2004;34:3652-63. (IHC-FS)
5. Kohm AP, Williams JS, Miller SD. Cutting edge: ligation of the glucocorticoid-induced TNF receptor enhances autoreactive CD4⁺ T cell activation and experimental autoimmune encephalomyelitis. *J Immunol.* 2004;172:4686-90. (Depletion)
6. Yu S, Maiti PK, Dyson M, Jain R, Braley-Mullen H. B cell-deficient NOD.H-2h4 mice have CD4⁺CD25⁺ T regulatory cells that inhibit the development of spontaneous autoimmune thyroiditis. *J Exp Med.* 2006;203:349-58. (FC)
7. Pevsner-Fischer M, Morad V, Cohen-Sfady M, Rousso-Noori L, Zanin-Zhorov A, Cohen S, et al. Toll-like receptors and their ligands control mesenchymal stem cell functions. *Blood.* 2007;109:1422-32. (FC)
8. Kinsey GR, Sharma R, Huang L, Li L, Vergis AL, Ye H, et al. Regulatory T cells suppress innate immunity in kidney ischemia-reperfusion injury. *J Am Soc Nephrol.* 2009;20:1744-53. (FC)
9. Sweet RA, Ols ML, Cullen JL, Milam AV, Yagita H, Shlomchik MJ. Facultative role for T cells in extrafollicular Toll-like receptor-dependent autoreactive B-cell responses in vivo. *Proc Natl Acad Sci USA.* 2011;108:7932-7. (FC)
10. Juchem KW, Anderson BE, Zhang C, McNiff JM, Demetris AJ, Farber DL, et al. A repertoire-independent and cell-intrinsic defect in murine GVHD induction by effector memory T cells. *Blood.* 2011;118:6209-19. (FC)
11. Jacobsen J, Haabeth OW, Tveita AA, Schjetne KW, Munthe LA, Bogen B. Naive idiotope-specific B and T cells collaborate efficiently in the absence of dendritic cells. *J Immunol.* 2014;192:4174-83. (FC)
12. Pollard AM, Lipscomb MF. Characterization of murine lung dendritic cells: similarities to Langerhans cells and thymic dendritic cells. *Eur J Immunol.* 1990;172:159-67. (CMCD)
13. Malek TR, Ortega G, Jakway JP, Chan C, Shevach EM. The murine IL 2 receptor. II. Monoclonal anti-IL 2 receptor antibodies as specific inhibitors of T cell function in vitro. *J Immunol.* 1984;133:1976-82. (Block)

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