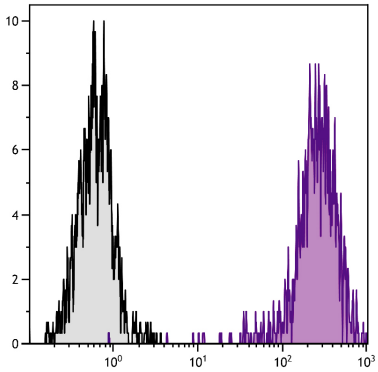
SouthernBiotech

Rat Anti-Mouse CD25

Cat. No.	Format	Size
1600-01	Purified (UNLB)	0.5 mg
1600-02	Fluorescein (FITC)	0.5 mg
1600-08	Biotin (BIOT)	0.5 mg
1600-09	R-phycoerythrin (PE)	0.1 mg
1600-09L	R-phycoerythrin (PE)	0.2 mg
1600-11	Allophycocyanin (APC)	0.1 mg
1600-13	Spectral Red® (SPRD)	0.1 mg
1600-14	Low Endotoxin, Azide-Free (LE/AF)	0.5 mg
1600-17	R-phycoerythrin-Cyanine 7 (PE/CY7)	0.1 mg
1600-27	Alexa Fluor® 700 (AF700)	0.1 mg



C57BL/6 mouse cytotoxic T lymphocyte cell line CTLL-2 was stained with Rat Anti-Mouse CD25-APC (SB Cat. No. 1600-11).

Overview

Clone 3C7
Isotype Rat (Lewis) $IgG_{2b\kappa}$
Immunogen IL-2 dependent BALB/c helper T cell clone HT2
Specificity Mouse CD25; Mr 55 kDa
Alternate Name(s) IL-2Rα, 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. Expression of CD25 on activated T lymphocytes is transitory and endogenously regulated. CD25 is expressed on precursor B cells in bone marrow. Its expression is initiated by functional rearrangement and expression of IgM heavy chain genes and is down-regulated when immature B cells mature and express IgD. It is expressed at a higher level on $CD4^+CD8^+$ thymocytes. It is also expressed on cultured epidermal Langerhans cells. The biochemical features of murine CD25 have been characterized in detail. The 3C7 monoclonal antibody reacts with an epitope of CD25 which is distinct from that recognized by clone 7D4. 3C7, used in combination with 7D4 in culture, results in higher levels of inhibition of proliferation driven by IL-2 and generation of alloreactive CTL than either of these monoclonal antibodies alone.

Applications

FC – Quality tested [1,4]
IHC-FS – Reported in literature [5,6]
IP – Reported in literature [1]
Block – Reported in literature [1,3]
Neut – Reported in literature [2]

Working Dilutions

Flow Cytometry	FITC and BIOT conjugates	≤ 3 μg/10^6 cells
	PE, APC, SPRD, PE/CY7, and AF700 conjugates	≤ 0.3 μg/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.	

For Research Use Only. Not for Diagnostic or Therapeutic Use.

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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 in 1.0 mL of PBS/NaN_3. Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN_3. 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/NaN_3 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/NaN_3 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/NaN_3 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.
- The Alexa Fluor® 700 (AF700) conjugate is supplied as 0.1 mg in 0.2 mL of PBS/NaN_3. Store at 2-8°C.
- 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. 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. (Immunogen, Block, IP, FC)
2. 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)
3. 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)
4. Li H, Matte-Martone C, Tan HS, Venkatesan S, McNiff J, Demetris AJ, et al. Graft-versus-host disease is independent of innate signaling pathways triggered by pathogens in host hematopoietic cells. J Immunol. 2011;186:230-41. (FC)
5. Klug DB, Carter C, Crouch E, Roop D, Conti CJ, Richie ER. Interdependence of cortical thymic epithelial cell differentiation and T-lineage commitment. Proc Natl Acad Sci USA. 1998;95:11822-7. (IHC-FS)
6. Comes A, Rosso O, Orengo AM, Di Carlo E, Sorrentino C, Meazza R, et al. CD25$^+$ regulatory T cell depletion augments immunotherapy of micrometastases by an IL-21-secreting cellular vaccine. J Immuno. 2006;176:1750-8. (IHC-FC)

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