



CELL LAB Rat Anti-Mouse CD25/IL-2R α

Cat. No.	Form	Quantity
732087	Purified (UNLB) Antibody	0.5 mg
732088	Fluorescein (FITC) Conjugate	0.5 mg
732089	Fluorescein (FITC) Conjugate	0.1 mg
732090	Biotin (BIOT) Conjugate	0.5 mg
732091	Phycoerythrin (PE) Conjugate	0.1 mg
733280	Phycoerythrin (PE) Conjugate	0.2 mg
732093	Spectral Red™ (SPRD) Conjugate	0.1 mg
732092	Allophycocyanin (APC) Conjugate	0.1 mg

For Laboratory Use Only

DESCRIPTION

Clone: 7D4
Isotype: Rat (Lewis) IgM κ
Immunogen: IL-2-dependent BALB/c mouse helper T-cell clone HT-2¹
Specificity: Low affinity α chain IL-2 receptor (IL-2R α), Mr 55 kDa

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.² CD25 is expressed on activated T cells, B cells, NK cells and monocytes of all mouse strains tested.^{1,3,4} It is transiently expressed at a low level during B-cell development in bone marrow on the CD45R/B220^{low} TdT⁻ slg⁻ pre-B II and CD45R/B220^{low} TdT⁻ slgM⁺slgD⁻ immature B cells, but not on the CD45R/B220^{low} TdT⁺ slg⁻ pro-B/pre-B I stage nor on CD45R/B220^{high} TdT⁻ slgM⁺slgD⁺ mature B cells.^{5,6} CD25 is expressed at a higher level during very early T-cell development in fetal and adult thymus.^{6,7} The 7D4 Monoclonal antibody (MAb) reacts with an epitope between amino acids 125 and 212 that is distinct from that recognized by MAb 3C7. While MAb 7D4 does not block the binding of IL-2 to CD25, when used in combination with MAb 3C7 it results in higher levels of inhibition of IL-2-driven proliferation than either of these two MAbs alone.^{3,8,9}

APPLICATIONS

- Flow cytometry^{1,3,4,7,8}
- Immunoprecipitation^{1,3}

CHARACTERIZATION

To ensure lot-to-lot consistency, each batch of product is tested to conform with characteristics of a standard reference reagent using immunofluorescence staining and flow cytometry.

WORKING DILUTIONS

Flow Cytometry:

FITC conjugate	$\leq 1 \mu\text{g}/10^6$ cells
BIOT conjugate	$\leq 1 \mu\text{g}/10^6$ cells
PE conjugate	$\leq 0.2 \mu\text{g}/10^6$ cells
APC conjugate	$\leq 0.2 \mu\text{g}/10^6$ cells
SPRD conjugate	$\leq 0.2 \mu\text{g}/10^6$ cells

Other Applications: Since applications vary, determine the optimum working dilution of the product that is appropriate for your specific needs.

HANDLING AND STORAGE

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of 100 mM borate buffered saline, pH 8.0. No preservatives or amine-containing buffer salts added.
- The fluorescein (FITC) conjugates are supplied as 0.5 mg or 0.1 mg in 1.0 mL of PBS/NaN₃.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃.
- The phycoerythrin (PE) conjugates are supplied as 0.1 mg in 1.0 mL or 0.2 mg in 2.0 mL of PBS/NaN₃ and a stabilizing agent.
- The allophycocyanin (APC) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent.
- The Spectral Red (SPRD) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent.
- Protect fluorochrome-conjugated forms from light. Do not freeze.
- Reagent is stable until the expiration date on the vial when stored at 2-8°C.

STATEMENT OF WARNINGS

1. Specimens, samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
2. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
3. Do not use reagent beyond the expiration date on the vial label.
4. Minimize exposure of reagent to light during storage or incubation.
5. Avoid microbial contamination of reagent or erroneous results may occur.
6. Use Good Laboratory Practice (GLP) when handling this reagent.
7. Harmful if swallowed.
8. After contact with skin, wash immediately with plenty of water.
9. Contains sodium azide. Sodium azide under acidic conditions yields hydrazoic acid, an extremely toxic compound. Azide compounds should be flushed with running water while being discarded. These precautions are recommended to avoid deposits in metal piping in which explosive conditions can develop. If skin or eye contact occurs, immediately wash excessively with water.

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REFERENCES

1. Malek TR, Robb RJ and Shevach EM. 1983. Identification and initial characterization of a rat monoclonal antibody reactive with the murine interleukin 2 receptor-ligand complex. *Proc Natl Acad Sci U S A*, 80:5694-5698.
2. Leonard WJ, Depper JM, Crabtree GR, Rudikoff S, Pumphrey J, Robb RJ, Kronke M, Svetlik PB, Peffer NJ, and Waldmann TA. 1984. Molecular cloning and expression of cDNAs for the human interleukin-2 receptor. *Nature*, 311:626-631.
3. Ortega G, Robb RJ, Shevach EM and Malek TR. 1984. 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*, 133:1970-1975.
4. Malek TR, Schmidt JA and Shevach EM. 1985. The murine IL 2 receptor. III. Cellular requirements for the induction of IL 2 receptor expression on T cell subpopulations. *J Immunol*, 134:2405-2413.
5. Rolink A, Grawunder U, Winkler TH, Karasuyama H and Melchers F. 1994. IL-2 receptor alpha chain (CD25, TAC) expression defines a crucial stage in pre-B cell development. *Int Immunol*, 6:1257-1264.
6. Chen J, Ma A, Young F and Alt FW. 1994. IL-2 receptor alpha chain expression during early B lymphocyte differentiation. *Int Immunol*, 6:1265-1268.
7. Habu S, Okumura K, Diamantstein T and Shevach EM. 1985. Expression of interleukin 2 receptor on murine fetal thymocytes. *Eur J Immunol*, 15:456-460.
8. Moreau JL, Nabholz M, Diamantstein T, Malek T, Shevach E and Theze J. 1987. Monoclonal antibodies identify three epitope clusters on the mouse p55 subunit of the interleukin 2 receptor: relationship to the interleukin 2-binding site. *Eur J Immunol*, 17:929-935.
9. Lorenzo F, Jaulin C, Vita N, Froussard P, Ferrara P, Jankovic DL and Theze J. 1991. Structure-function study of the p55 subunit of murine IL-2 receptor by epitope mapping. *J Immunol*, 147:2970-2977.



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