

## Anti-Mouse CD25 Antibody, Clone 3C7



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## Antibodies

Rat monoclonal IgG2b antibody  
against mouse CD25, unconjugated

Catalog #60010

500 µg 0.5 mg/mL

FOR RESEARCH USE ONLY. NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.

## Product Description

The 3C7 antibody reacts with murine CD25 (interleukin-2 receptor  $\alpha$  chain; IL-2R $\alpha$ ), an ~55 kDa type 1 transmembrane glycoprotein expressed on the surface of T and B cell progenitors and activated mature B and T cells. CD25 has been used as a marker to identify CD4<sup>+</sup>/FoxP3<sup>+</sup> regulatory T cells in mice. Mutations in CD25 result in severe immunodeficiency, underscoring the importance of the roles the protein plays in the differentiation, activation and proliferation of lymphocytes, and in the maintenance of self-tolerance. CD25 per se has low affinity for its IL-2 ligand but forms dimers with CD122 (IL-2R $\beta$ ) and CD132 (IL-2R $\gamma$ ) that together associate to form the IL-2R receptor, which binds IL-2 with high affinity. CD25 acts to increase the specificity and affinity of IL-2 binding and is necessary for receptor clustering and signal transduction by the complex. Binding of the 3C7 antibody inhibits binding of IL-2 to free CD25 and the IL-2R receptor. The epitope is distinct from those recognized by the anti-CD25 antibody clones 7D4 and PC61.

Target Antigen Name:	CD25
Alternative Names:	IL-2R $\alpha$ , Ly-43, p55, Tac
Gene ID:	16184
Species Reactivity:	Mouse
Host Species:	Rat (LEW)
Clonality:	Monoclonal
Clone:	3C7
Isotype:	IgG2b, kappa
Immunogen:	IL-2-dependent BALB/c mouse helper T cell clone HT-2
Conjugate:	Unconjugated

## Applications

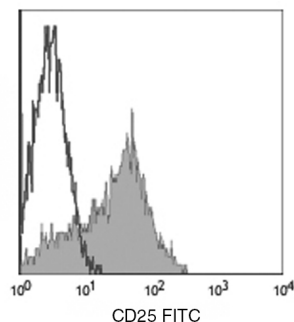
Verified:	FC
Reported:	CyTOF®, FA, FC, IHC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Mouse T Cell Enrichment Kit (Catalog #19751).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; WB: Western blotting

## Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please request a lot-specific Certificate of Analysis from <a href="mailto:techsupport@stemcell.com">techsupport@stemcell.com</a> .
Directions for Use:	For flow cytometry the suggested use of this antibody is $\leq 1.0$ µg per $1 \times 10^6$ cells in 100 µL volume. It is recommended that the antibody be titrated for optimal performance for each application.

## Data



Flow cytometry analysis of Con A-activated C57BL/6 mouse splenocytes labeled with Anti-Mouse CD25 Antibody, Clone 3C7, followed by anti-rat IgG, FITC (filled histogram) or a rat IgG2b, kappa isotype control antibody followed by anti-rat IgG, FITC (open histogram).

## Related Products

PRODUCT NAME	CATALOG #	SIZE
Anti-Mouse CD25 Antibody, Clone 3C7	60010	500 µg
Anti-Mouse CD25 Antibody, Clone 3C7, PE	60010PE	100 µg
Anti-Mouse CD25 Antibody, Clone 3C7, PE	60010PE.1	25 µg
Anti-Mouse CD25 Antibody, Clone 3C7, FITC	60010FI.1	50 µg
Anti-Mouse CD25 Antibody, Clone 3C7, FITC	60010FI	500 µg

## References

1. Malek TR, et al. The murine IL 2 receptor. II. Monoclonal anti-IL 2 receptor antibodies as specific inhibitors of T cell function in vitro. J Immunol 133(4): 1976-82, 1984
2. Ortega G, et al. 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(4): 1970-75, 1984 (Blocking, FA)
3. Moreau JL, et al. 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(7): 929-35, 1987 (Blocking, FA)
4. Lorenzo F, et al. Structure-function study of the p55 subunit of murine IL-2 receptor by epitope mapping. J Immunol 147(9): 2970-77, 1991
5. Klug DB, et al. Interdependence of cortical thymic epithelial cell differentiation and T-lineage commitment. Proc Natl Acad Sci USA 95(20): 11822-27, 1998 (IHC)
6. Read S, et al. Cytotoxic T lymphocyte-associated antigen 4 plays an essential role in the function of CD25(+)CD4(+) regulatory cells that control intestinal inflammation. J Exp Med 192(2): 295-302, 2000

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