Antibodies

Anti-Mouse CD25 Antibody, Clone 3C7, PE

Rat monoclonal IgG2b antibody against mouse CD25, PE-conjugated

Catalog #60010PE	100 µg	0.2 mg/mL
#60010PE.1	25 µg	0.2 mg/mL

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Product Description

The 3C7 antibody reacts with murine CD25 (interleukin-2 receptor α chain; IL-2Rα), 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+/FoxP3+ 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-2Rβ) and CD132 (IL-2Rγ) 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-2Ralpha, 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:	PE

Applications

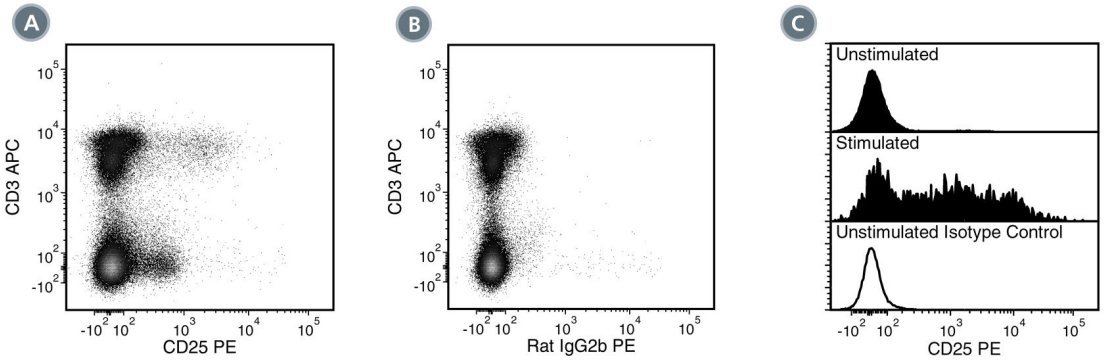
Verified:	CellSep, FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Mouse T Cell Enrichment Kit (Catalog #19751).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions. The solution is free of unconjugated PE and unconjugated antibody.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	For flow cytometry the suggested use of this antibody is ≤ 1 µg per 1 x 10^6 cells in 100 µL volume. It is recommended that the antibody be titrated for optimal performance for each application.

Data



(A) Flow cytometry analysis of C57BL/6 mouse splenocytes labeled with Anti-Mouse CD25 Antibody, Clone 3C7, PE and anti-mouse CD3 APC.
(B) Flow cytometry analysis of C57BL/6 mouse splenocytes labeled with a rat IgG2b, kappa PE isotype control antibody and anti-mouse CD3 APC.
(C) Flow cytometry analysis of mouse T cells activated with antibodies against CD3 and CD28. C57BL/6 mouse splenocytes were processed with the EasySep™ Mouse T Cell Enrichment Kit and the enriched T cells were cultured in the absence (Unstimulated) or presence (Stimulated) of Anti-Mouse CD28 and plate-bound Anti-Mouse CD3e for 48 hours, then labeled with Anti-Mouse CD25 Antibody, Clone 3C7, PE and analyzed for CD25 expression. Upregulation of CD25 following stimulation with CD3 and CD28 is apparent (Stimulated). Labeling of C57BL/6 mouse splenocytes with a rat IgG2b, kappa Alexa Fluor® 488 isotype control antibody is shown (solid line histogram).

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

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