Technical Data Sheet

Biotin Rat Anti-Mouse CD25

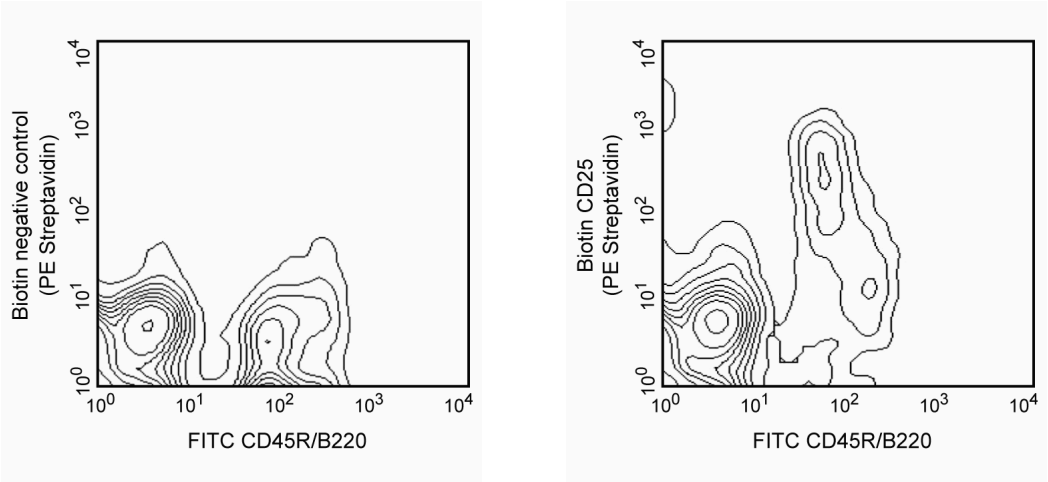
Product Information

Material Number:	**553070**
Alternate Name:	IL-2 Receptor α chain, p55
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	7D4
Immunogen:	IL-2-dependent BALB/c mouse helper T-cell clone HT-2
Isotype:	Rat (LEW) IgM, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 7D4 antibody reacts with CD25, the low affinity IL-2 Receptor (IL-2Rα, p55) expressed on activated T and B lymphocytes from all mouse strains tested. IL-2Rα by itself is not a signaling receptor. However, it can combine with IL-2 Receptor β (CD122) and γ (CD132) chains to form high-affinity, signaling receptor complexes for IL-2. Resting T and B lymphocytes and resting and activated NK cells do not express IL-2Rα. CD25 is transiently expressed at a low level during normal B-cell development in the bone marrow on the CD45R/B220low TdT- sIg- Pre-B/Pre-B-II and CD45R/B220low TdT- sIgM+ sIgD- immature B stages, but not on the CD45R/B220low TdT+ sIg- Pro-B/Pre-B-I stage nor on CD45R/B220high TdTsIgM+ sIgD+ mature B cells. It is expressed at a higher level during a very early stage of T-cell development in fetal and adult thymus. Peripheral CD25+ CD4+ T lymphocytes called regulatory T (Treg) cells are involved in the maintenance of self-tolerance. It has also been reported that dendritic cells express CD25, recognized by mAb 7D4 (Cat. no. 553068). The 3C7 antibody recognizes an epitope of CD25 which is distinct from those recognized by mAbs 7D4 and PC61 (Cat. no. 553866), and it blocks binding of IL-2 to CD25.

This antibody is routinely tested by flow cytometric analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Two-color analysis of the expression of CD25 in bone marrow. *BALB/c bone marrow leukocytes were simultaneously stained with biotin-conjugated 7D4 (right panel) and FITC-conjugated RA3-6B2 (anti-mouse CD45R/B220, Cat. No. 553087/553088, both panels) monoclonal antibodies, followed by Streptavidin-PE (Cat. No. 554061, both panels). Flow cytometry was performed on a BD FACScan™ Flow Cytometry System.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was removed.
Store undiluted at 4° C and protected from prolonged exposure to light. Do not freeze.

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Application Notes

Application

Flow cytometry	Routinely Tested

Recommended Assay Procedure:

For detection of low-density CD25 expression, we recommend the use of a "bright" second-step reagent, such as Streptavidin-PE (Cat. No. 554061). For immunohistochemical staining, we recommend the use of biotinylated 7D4 mAb in our special formulation for immunohistochemistry, Cat. No. 550529.

Suggested Companion Products

Catalog Number	Name	Size	Clone
553087	FITC Rat Anti-Mouse CD45R/B220	0.1 mg	RA3-6B2
554061	PE Streptavidin	0.5 mg	(none)
553941	Biotin Rat IgM κ Isotype Control	0.25 mg	R4-22

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Use of these products to measure activation antigens expressed on mononuclear cell subsets for the purpose of monitoring immunoregulatory status can fall under one or more claims of the following patents: US Patent Nos. 5,445,939, 5,656,446, 5,843,689; European Patent No. 319,543; Canadian Patent No. 1,296,622; Australian Patent No. 615,880; and Japanese Patent No. 2,769,156.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

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