

## Technical Data Sheet

## Purified Rat Anti-Mouse CD25

## Product Information

<b>Material Number:</b>	<b>553068</b>
<b>Alternate Name:</b>	IL-2 Receptor $\alpha$ chain, p55
<b>Size:</b>	0.5 mg
<b>Concentration:</b>	0.5 mg/ml
<b>Clone:</b>	7D4
<b>Immunogen:</b>	IL-2-dependent BALB/c mouse helper T-cell clone HT-2
<b>Isotype:</b>	Rat (LEW) IgM, $\kappa$
<b>Reactivity:</b>	QC Testing: Mouse
<b>Storage Buffer:</b>	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

## Description

The 7D4 antibody reacts with CD25, the low affinity IL-2 Receptor (IL-2R $\alpha$ , p55) expressed on activated T and B lymphocytes from all mouse strains tested. IL-2R $\alpha$  by itself is not a signaling receptor. However, it can combine with IL-2 Receptor  $\beta$  (CD122) and  $\gamma$  (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-2R $\alpha$ . 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 TdT sIgM+ 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.

## Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at 4° C.

## Application Notes

## Application

Flow cytometry	Routinely Tested
Radioimmunoassay	Reported
Cytotoxicity	Reported
ELISA	Reported
Immunohistochemistry-frozen	Reported
Immunoprecipitation	Reported

## Recommended Assay Procedure:

For detection of low-density CD25 expression, we recommend the use of the PE conjugate of PC61 antibody (Cat. No. 553866) or the biotin conjugate of 7D4 antibody (Cat. No. 553069/553070) with a "bright" second-step reagent, such as Streptavidin-PE (Cat. No. 554061). For IHC, 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
553940	Purified Rat IgM $\kappa$ Isotype Control	0.5 mg	R4-22
554016	FITC Goat Anti-Rat Igs	0.5 mg	Polyclonal

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## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/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.
5. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE™ (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.

## References

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