

## Technical Data Sheet

## Biotin Rat Anti-Mouse CD45RB

## Product Information

<b>Material Number:</b>	553098
<b>Size:</b>	0.5 mg
<b>Concentration:</b>	0.5 mg/ml
<b>Clone:</b>	16A
<b>Immunogen:</b>	Cloned Mouse TH2 cell lines
<b>Isotype:</b>	Rat IgG2a, $\kappa$
<b>Reactivity:</b>	QC Testing: Mouse
<b>Storage Buffer:</b>	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

## Description

The 16A antibody reacts with an exon B-dependent epitope of CD45 lycoprotein, which is found at high density on peripheral B cells, T cytotoxic/suppressor cells, subset of T helper cells, and most thymocytes and at low density on macrophages and dendritic cells. The level of CD45RB expression appears to decrease as T lymphocytes progress from naive to memory cells. In addition, subpopulations of CD4<sup>+</sup> T cells which express high and low levels of D45RB have different cytokine secretion profiles and mediate distinct immunological functions. CD25<sup>+</sup> D4<sup>+</sup> regulatory T (Treg) lymphocytes which control intestinal inflammation and autoimmunity express low levels of D45RB. CD45 is a member of the Protein Tyrosine Phosphatase (PTP) family: Its intracellular (COOH-terminal) region contains two PTP catalytic domains, and the extracellular region is highly variable due to alternative splicing of exons (designated A, B, and C, respectively), plus differing levels of glycosylation. The CD45 isoforms detected in the mouse are cell type-, maturation-, and activation state-specific. The CD45 isoforms play complex roles in T-cell and B-cell antigen receptor signal transduction.

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.

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.

## Application Notes

## Application

Flow cytometry	Routinely Tested
Immunofluorescence	Tested During Development

## Suggested Companion Products

Catalog Number	Name	Size	Clone
553928	Biotin Rat IgG2a $\kappa$ Isotype Control	0.25 mg	R35-95
554061	PE Streptavidin	0.5 mg	(none)

## 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](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.
3. 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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