

## Technical Data Sheet

## Biotin Rat Anti-Mouse CD45

## Product Information

<b>Material Number:</b>	553077
<b>Alternate Name:</b>	Leukocyte Common Antigen (LCA), Ly-5, T200
<b>Size:</b>	0.1 mg
<b>Concentration:</b>	0.5 mg/ml
<b>Clone:</b>	30-F11
<b>Immunogen:</b>	Mouse Thymus / Spleen
<b>Isotype:</b>	Rat (LOU) IgG2b, $\kappa$
<b>Reactivity:</b>	QC Testing: Mouse
<b>Storage Buffer:</b>	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

## Description

The 30-F11 clone has been reported to react with all isoforms and both alloantigens of CD45, which is found on hematopoietic stem cells and all cells of hematopoietic origin, except erythrocytes. CD45 is a transmembrane glycoprotein which is expressed at high levels on the cell-surface, and its presence distinguishes leukocytes from non-hematopoietic cells. CD45 is a member of the Protein Tyrosine Phosphatase (PTP) family, where the intracellular carboxy-terminal region contains two PTP catalytic domains, and the extracellular region is highly variable due to alternative splicing of exons 4, 5, and 6 (designated as A, B, and C, respectively). CD45 isoforms play complex roles in T-cell and B-cell antigen receptor signal transduction and the CD45 isoforms detected in the mouse are cell type-, maturation-, and activation state-specific.

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
----------------	------------------

## Suggested Companion Products

Catalog Number	Name	Size	Clone
553987	Biotin Rat IgG2b, $\kappa$ Isotype Control	0.25 mg	A95-1

## 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

Johnson P, Maiti A. CD45: A family of leukocyte-specific cell surface glycoproteins. In: Herzenberg LA, Weir DM, Blackwell C, ed. *Weir's Handbook of Experimental Immunology*, Vol 2. Cambridge: Blackwell Science; 1997:62.1-62.16.(Biology)

Lagasse E, Connors H, Al-Dhalimy M, et al. Purified hematopoietic stem cells can differentiate into hepatocytes in vivo. *Nat Med*. 2000; 6(11):1212-1213.(Biology)

Ledbetter JA, Herzenberg LA. Xenogeneic monoclonal antibodies to mouse lymphoid differentiation antigens. *Immunol Rev*. 1979; 47:63-90.(Immunogen)

Thomas ML. The leukocyte common antigen family. *Annu Rev Immunol*. 1989; 7:339-369.(Biology)

## BD Biosciences

[bdbiosciences.com](http://bdbiosciences.com)

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.259.0187	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country-specific contact information, visit [bdbiosciences.com/how\\_to\\_order/](http://bdbiosciences.com/how_to_order/)

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

BD, BD Logo and all other trademarks are the property of Becton, Dickinson and Company. ©2006 BD



**BD**

**BD Biosciences**