

## Technical Data Sheet

## FITC Rat Anti-Mouse CD45

## Product Information

<b>Material Number:</b>	<b>561088</b>
<b>Alternate Name:</b>	Leukocyte Common Antigen (LCA), Ly-5, T200
<b>Size:</b>	25 µg
<b>Concentration:</b>	0.5 mg/ml
<b>Clone:</b>	30-F11
<b>Immunogen:</b>	Mouse Thymus / Spleen
<b>Isotype:</b>	Rat (LOU) IgG2b, κ
<b>Reactivity:</b>	QC Testing: Mouse
<b>Storage Buffer:</b>	Aqueous buffered solution containing ≤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 FITC under optimum conditions, and unreacted FITC was removed.

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

## Application Notes

## Application

Flow cytometry	Routinely Tested
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## Suggested Companion Products

Catalog Number	Name	Size	Clone
553988	FITC Rat IgG2b, κ 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 [wwwbdbiosciences.com/pharmingen/protocols](http://wwwbdbiosciences.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)

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