Technical Data Sheet

Purified Rat Anti-Mouse CD45

Product Information

Material Number:	**553076**
Alternate Name:	Leukocyte Common Antigen, Ly-5
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	30-F11
Immunogen:	Mouse Thymus or Spleen
Isotype:	Rat (LOU) IgG2b κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 30-F11 antibody reacts with both alloantigens and all isoforms of the CD45 leukocytes common antigen (LCA), also known as Ly-5 or T200, 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: Its intracellular (COOH-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 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.
Store undiluted at 4° C.

Application Notes

Application

Flow cytometry	Routinely Tested
Cytotoxicity	Reported
Immunoprecipitation	Reported
Immunofluorescence	Reported
Immunohistochemistry-frozen	Reported
Immunohistochemistry-formalin (antigen retrieval required)	Reported
Immunohistochemistry-zinc-fixed	Reported
Immunochemistry	Reported

Recommended Assay Procedure:
This antibody has been tested by immunofluorescent staining (≤ 1 µg/million cells) by flow cytometric analysis. For Immunohistochemical staining, we recommend the use of purified 30-F11 mAb in our special formulation for IHC, Cat. No. 550539.

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. 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.

BD Biosciences
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/

BD
BD Biosciences

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: Cytotoxicity, Immunoprecipitation)

Simon DI, Dhen Z, Seifert P, Edelman ER, Ballantyne CM, Rogers C. Decreased neointimal formation in Mac-1(-/-) mice reveals a role for inflammation in vascular repair after angioplasty. *J Clin Pathol.* 2000; 105(3):293-300.(Clone-specific: Immunohistochemistry)

Tamaki K, Yasaka N, Chang CH, et al. Identification and characterization of novel dermal Thy-1 antigen-bearing dendritic cells in murine skin. *J Invest Dermatol.* 1996; 106(3):571-575.(Clone-specific: Immunofluorescence)

Tan J, Town T, Paris D, et al. Microglial activation resulting from CD40-CD40L interaction after beta-amyloid stimulation. *Science.* 1999; 286(5448):2352-2355. (Clone-specific: Immunohistochemistry)

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