

Technical Data Sheet

FITC Rat Anti-Rat CD45.1

Product Information

Material Number:	550802
Alternate Name:	RT7.1 of LCA
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	NDS58
Immunogen:	LEW rat thymocytes
Isotype:	Rat (AS) IgG2b, κ
Reactivity:	QC Testing: Rat
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The NDS58 antibody reacts with all isoforms of CD45 (Leukocyte Common Antigen) on all hematopoietic cells, excluding the more mature erythroid cells, in strains expressing the RT7.1 alloantigen. The antibody does not react with the RT7.2 alloantigen. RT7.1 strains include ACI, AO, BN, DA, DZB, LEW, MAXX, PVG, SHR, and WAG; while BUF, LOU, and WF are RT7.2 strains. 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 rat are cell type-, maturation-, and activation state-specific. The CD45 isoforms play complex roles in T-cell and B-cell antigen receptor signal transduction.

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 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

Butcher GW. A list of monoclonal antibodies specific for alloantigens of the rat. *J Immunogenet.* 1987; 14(2-3):163-176.(Biology)
 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)
 Kampinga J, Kroese FG, Pol GH, et al. RT7-defined alloantigens in rats are part of the leukocyte common antigen family. *Scand J Immunol.* 1990; 31(6):699-710. (Biology)
 Newton MR, Wood KJ, Fabre JW. A monoclonal alloantibody detecting a polymorphism of the rat leukocyte common (LC) antigen. *J Immunogenet.* 1986; 13(1):41-50.(Immunogen)

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