

Technical Data Sheet

PE Rat Anti-Mouse CD5

Product Information

Material Number:	553022
Alternate Name:	Lymphocyte antigen 1; Cd5; Ly-12; Ly-A; Lyt-1
Size:	0.1 mg
Concentration:	0.2 mg/ml
Clone:	53-7.3
Immunogen:	Mouse Thymus / Spleen
Isotype:	Rat (LOU) IgG2a, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The 53-7.3 monoclonal antibody specifically binds to a monomorphic epitope of CD5, a member of the scavenger receptor cysteine-rich protein superfamily and the major ligand of CD72, found on thymocytes, T lymphocytes, thymic NKT cells, and a subset of B lymphocytes, but not on NK cells or splenic NKT cells. The level of surface CD5 expression is developmentally regulated in the thymus, starting with low levels on CD4-CD8- thymocytes and increasing as they mature to CD4+CD8+ then CD4+CD8- or CD4-CD8+ thymocytes. Relatively high levels are maintained on peripheral T lymphocytes. The level of CD5 antigen detected on T helper cells has been reported to be somewhat higher than that on T cytotoxic/suppressor and B cells. Few, if any, intestinal intraepithelial lymphocytes bearing the $\gamma\delta$ T-cell receptor express CD5. Phenotypic, anatomical, functional, developmental, and pathogenic characteristics of peripheral CD5+ B cells suggest that they may represent a distinct lineage, known as B-1 cells. The frequency of these CD5+ B cells has been reported to show strain-dependent variation. An additional population of CD5+ B lymphocytes resides in the thymus, where it matures from intrathymic B-cell progenitors. It has been proposed that CD5 is a costimulatory molecule which mediates interactions of cells in the immune system and negatively regulates signal transduction mediated by the T-cell receptor and B-cell receptor.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were 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
553930	PE Rat IgG2a, κ Isotype Control	0.1 mg	R35-95

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. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
4. 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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