

Technical Data Sheet

Purified Rat Anti-Mouse CD5

Product Information

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| Material Number: | 553017 |
| Alternate Name: | Ly-1 |
| Size: | 0.5 mg |
| Concentration: | 0.5 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 clone has been reported to react with 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 NK-T cells, and a subset of B lymphocytes, but not on NK cells or splenic NK-T 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.

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

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| Flow cytometry | Routinely Tested |
| Immunohistochemistry-formalin (antigen retrieval required) | Tested During Development |
| Immunohistochemistry-frozen | Reported |
| ELISA | Reported |
| Immunoprecipitation | Reported |
| Cytotoxicity | Reported |
| Blocking | Reported |

Recommended Assay Procedure:

Caution: Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also effect the results of functional studies, we recommend the NA/LE™ (No Azide/Low Endotoxin) antibody format for in vitro and in vivo use.

Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|----------------|---|--------|--------|
| 553927 | Purified Rat IgG2a κ Isotype Control | 0.5 mg | R35-95 |

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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharming/en/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

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