Technical Data Sheet

# Purified Rat Anti-Mouse CD4

## Product Information

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| **Material Number:** | **553053** |
| **Alternate Name:** | L3T4 |
| **Size:** | 0.5 mg |
| **Concentration:** | 0.5 mg/ml |
| **Clone:** | RM4-4 |
| **Immunogen:** | BALB/c mouse thymocytes |
| **Isotype:** | Rat (SD) IgG2b, κ |
| **Reactivity:** | QC Testing: Mouse |
| **Storage Buffer:** | Aqueous buffered solution containing ≤0.09% sodium azide. |

## Description

The RM4-4 antibody reacts with the CD4 (L3T4) differentiation antigen expressed on most thymocytes, a subpopulation of mature T lymphocytes (i.e., MHC class II-restricted T cells, including most T helper cells), and a subset of NK-T cells of all mouse strains tested. CD4 has also been detected at low density on pluripotent hematopoietic stem cells, bone marrow myeloid and B-lymphocyte precursors, intrathymic lymphoid precursors, and a subset of splenic dendritic cells. CD4 is expressed on the plasma membrane of mouse egg cells and is involved in adhesion of the egg to MHC class II-bearing sperm. CD4 is an antigen coreceptor on the T-cell surface which interacts with MHC class II molecules on antigen-presenting cells. It participates in T-cell activation through its association with the T-cell receptor complex and protein tyrosine kinase lck. Purified RM4-4 mAb does not block binding of FITC-conjugated GK1.5 mAb (Cat. No. 557307/553729), H129.19 mAb (Cat. No. 553650/553651), or RM4-5 mAb (Cat. No. 553046/553047) to T cells.

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 |

**Recommended Assay Procedure:**
For immunohistochemical staining, we recommend the use of purified H129.19 (Cat. No. 550278) or purified RM4-5 (Cat. No. 550280) mAbs in our special formulation for immunohistochemistry.

## Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|---|---|---|---|
| 554016 | FITC Goat Anti-Rat Igs | 0.5 mg | Polyclonal |
| 553986 | Purified Rat IgG2b, κ Isotype Control | 0.5 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.
4. 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 affect the results of functional studies, we recommend the NA/LE™ (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.

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