

# Technical Data Sheet

## FITC Rat Anti-Mouse CD4

### Product Information

|                         |                                                                  |
|-------------------------|------------------------------------------------------------------|
| <b>Material Number:</b> | 553651                                                           |
| <b>Alternate Name:</b>  | L3T4                                                             |
| <b>Size:</b>            | 0.5 mg                                                           |
| <b>Concentration:</b>   | 0.5 mg/ml                                                        |
| <b>Clone:</b>           | H129.19                                                          |
| <b>Immunogen:</b>       | A.TH mouse CTL clone A15.1.17                                    |
| <b>Isotype:</b>         | Rat (LOU) IgG2a, $\kappa$                                        |
| <b>Reactivity:</b>      | QC Testing: Mouse                                                |
| <b>Storage Buffer:</b>  | Aqueous buffered solution containing $\leq 0.09\%$ sodium azide. |

### Description

The H129.19 antibody reacts with the CD4 (L3T4) differentiation antigen expressed on 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 on pluripotent hematopoietic stem cells, bone marrow myeloid 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 lck. H129.19 mAb blocks binding of the anti-mouse CD4 mAbs Gk1.5 (Cat. No. 557307/553729) and RM4-5 (Cat. No. 553046/553047), but not RM4-4 (Cat. No. 553055) antibody. mAb H129.19 inhibits various responses of T helper cells to antigenic or mitogenic stimuli.

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.

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 |
|----------------|------------------|

### Suggested Companion Products

| Catalog Number | Name                                     | Size    | Clone  |
|----------------|------------------------------------------|---------|--------|
| 553929         | FITC Rat IgG2a, $\kappa$ Isotype Control | 0.25 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](http://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

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