

Technical Data Sheet

Purified Rat Anti-Mouse CD4

Product Information

Material Number:	553647
Alternate Name:	L3T4
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	H129.19
Immunogen:	A.TH mouse CTL clone A15.1.17
Isotype:	Rat (LOU) IgG2a, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	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.

Store undiluted at 4° C.

Application Notes

Application

Flow cytometry	Routinely Tested
Immunoprecipitation	Reported
Blocking	Reported
Depletion	Reported
Immunohistochemistry-frozen	Reported
Immunohistochemistry-zinc-fixed	Reported
Immunohistochemistry-formalin (antigen retrieval required)	Not Recommended

Recommended Assay Procedure:

For IHC, we recommend the use of purified H129.19 mAb (Cat. No. 550278) or RM4-5 mAb (Cat. No. 550280) in our special formulation for immunohistochemistry.

Suggested Companion Products

Catalog Number	Name	Size	Clone
554016	FITC Goat Anti-Rat Igs	0.5 mg	Polyclonal
559073	Purified Rat IgG2a κ Isotype Control (ICC)	0.25 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.
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.

References

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