

# Product Data Sheet

## Purified anti-mouse CD4

**Catalog # / Size:** 130302 / 500 µg  
**Clone:** H129.19  
**Isotype:** Rat IgG2a, κ  
**Immunogen:** Mouse lymphocytes  
**Reactivity:** Mouse  
**Preparation:** The antibody was purified by affinity chromatography.  
**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.  
**Concentration:** 0.5 mg/ml  
**Storage:** The antibody solution should be stored undiluted at 4°C.

## Applications:

**Applications:** FC - *Quality tested*  
 IHC - *Reported in the literature*

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤0.25 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

**Application Notes:** Additional reported applications (for the relevant formats) include: blocking of CD4<sup>+</sup> T cell activation<sup>1-3</sup>, depletion. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays.

**Application References:**

1. Naquet P. 1985. *Immunogenetics*. 22:247.
2. Pierres A. 1984. *J. Immunol.* 132:2775.
3. Guo MW. 1995. *Zygote*. 3:65.
4. Ghobrial RR. 1989. *Clin Immunol Immunopathol*. 52:486.

**Description:** CD4 is a 55 kD protein, also known as L3T4 or T4. It is a member of the Ig superfamily, primarily expressed on most thymocytes, a subset of T cells, and weakly on macrophages and dendritic cells. It acts as a coreceptor with the TCR during T cell activation and thymic differentiation by binding MHC class II and associating with the protein tyrosin kinase, lck. The H129.19 antibody is able to block CD4 mediated cell adhesion and T cell activation. It is also useful for in vivo and in vitro depletion of CD4<sup>+</sup> T cells. H129.19 antibody blocks binding of the anti-mouse CD4 mAbs GK1.5 and RM4-5, but not RM4-4 antibody. H129.19 antibody inhibits various responses of T helper cells to antigenic or mitogenic stimuli.

**Antigen References:**

1. Barclay A, *et al.* 1997. *The Leukocyte Antigen FactsBook Academic Press*.
2. Bierer BE, *et al.* 1989. *Annu. Rev. Immunol.* 7:579.
3. Janeway CA. 1992. *Annu. Rev. Immunol.* 10:645.
4. Naquet P. 1985. *Immunogenetics*. 22:247-256.
5. Pierres A. 1984. *J. Immunol.* 132:2775-2782.
6. Guo MW. 1995. *Zygote*. 3:65-73.
7. Ghobrial RR. 1989. *Clin Immunol Immunopathol*. 52:486-506.

| Related Products: | Product                            | Clone   | Application              |
|-------------------|------------------------------------|---------|--------------------------|
|                   | Purified Rat IgG2a, κ Isotype Ctrl | RTK2758 | FC, ICC, IF, IHC, IP, WB |
|                   | Cell Staining Buffer               |         | FC, ICC, ICFC            |
|                   | RBC Lysis Buffer (10X)             |         | FC, ICFC                 |



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