

# CD4 Monoclonal Antibody (RM4-5), APC, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Mouse, Human
Host/Isotope	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), APC, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	RM4-5
Conjugate	APC
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.1% gelatin
Contains	0.09% sodium azide
Storage Conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_469323

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.125 µg/test	132 Publications
Immunofluorescence (IF)	-	2 Publications
Immunohistochemistry (Frozen) (IHC (F))	-	2 Publications
Immunohistochemistry (IHC)	-	1 Publication

## Product Specific Information

**Description:** The RM4-5 monoclonal antibody reacts with the mouse CD4 molecule, a 55 kDa cell surface receptor expressed by a majority of thymocytes, subpopulation of mature T cells and dendritic cells. CD4 binds to MHC class II on the surface of antigen presenting cells and plays an important role both in T cell development and in optimal functioning of mature T cells. In T cells, CD4 associates with protein tyrosine kinase p56lck through its cytoplasmic tail. Binding of RM4-5 is blocked by GK1.5.

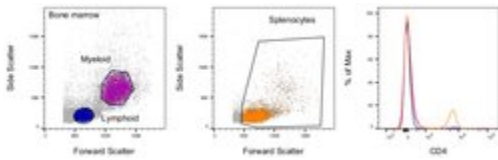
**Applications Reported:** The RM4-5 antibody has been reported for use in flow cytometric analysis.

**Applications Tested:** The RM4-5 antibody has been tested by flow cytometric analysis of mouse thymocyte or splenocyte suspensions. This can be used at less than or equal to 0.125 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells /test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Excitation: 633-647 nm; Emission: 660 nm; Laser: Red Laser.

Filtration: 0.2 µm post-manufacturing filtered.

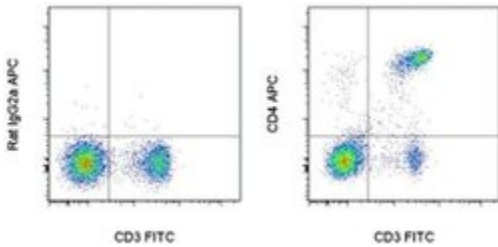
## Advanced Verification Data



### CD4 Antibody (17-0042-82)

Staining of mouse splenocytes and bone marrow cells. Right: As expected based on known relative expression patterns, CD4 clone RM4-5 stains a subset of splenocytes and does not stain any bone marrow cells. Details: Balb/c bone marrow cells (left) and splenocytes (middle) were surface stained with CD4 (clone RM4-5) followed by staining with 7-AAD. Viable bone marrow cells in the lymphoid (blue histogram) and myeloid (purple histogram) gates and viable splenocytes (orange histogram) were used for analysis. Relative expression validation info.

## Product Images For CD4 Monoclonal Antibody (RM4-5), APC, eBioscience™



### CD4 Antibody (17-0042-82) in Flow

Staining of mouse splenocytes with Anti-Mouse CD3 FITC (Product # 11-0032-82) and 0.06 µg of Rat IgG2a K Isotype Control APC (Product # 17-4321-81) (left) or 0.06 µg of Anti-Mouse CD4 APC (right). Cells in the lymphocyte gate were used for analysis.

[View more figures on thermofisher.com](https://www.thermofisher.com)

## Flow Cytometry (132)

Frontiers in neurology

### IL-2/Anti-IL-2 Complex Attenuates Inflammation and BBB Disruption in Mice Subjected to Traumatic Brain Injury.

"Published figure using CD4 monoclonal antibody (Product # 17-0042-82) in Flow Cytometry"

Authors: Gao W,Li F,Zhou Z,Xu X,Wu Y,Zhou S,Yin D,Sun D,Xiong J,Jiang R,Zhang J

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2020

Frontiers in immunology

### Mutation of an L-Type Calcium Channel Gene Leads to T Lymphocyte Dysfunction.

"Published figure using CD4 monoclonal antibody (Product # 17-0042-82) in Flow Cytometry"

Authors: Fenninger F,Han J,Stanwood SR,Nohara LL,Arora H,Choi KB,Munro L,Pfeifer CG,Shanina I,Horwitz MS,Jefferies WA

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2020

[View more Flow references on thermofisher.com](#)

## Immunofluorescence (2)

The Journal of experimental medicine

### CCR4 promotes medullary entry and thymocyte-dendritic cell interactions required for central tolerance.

"17-0042 was used in Immunofluorescence to demonstrate that CCR4 promotes medullary entry of the earliest post-positive selection thymocytes, as well as efficient interactions between medullary thymocytes and dendritic cells."

Authors: Hu Z,Lancaster JN,Sasiponganan C,Ehrlich LI

**Species**  
Mouse

**Dilution**  
Not Cited

**Year**  
2015

The Journal of experimental medicine

### IL-4-producing CD4+ T cells in reactive lymph nodes during helminth infection are T follicular helper cells.

"17-0042 was used in Immunohistochemistry on frozen tissues to investigate the location of IL-4-producing T cells in the lymph nodes."

Authors: King IL,Mohrs M

**Species**  
Mouse

**Dilution**  
Not Cited

**Year**  
2009

## More applications with references on thermofisher.com

[IHC \(1\)](#)

[IHC \(F\) \(2\)](#)

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