

# CD4 Monoclonal Antibody (RM4-5), PE, 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), PE, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	RM4-5
Conjugate	PE
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_465510

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.125 µg/test	87 Publications
Miscellaneous PubMed (Misc)	-	2 Publications

## 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.

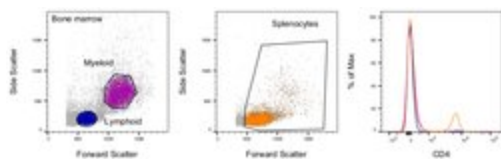
Applications Reported: The RM4-5 antibody has been reported for use in flow cytometric analysis.

Tested: The RM4-5 antibody has been tested by flow cytometric analysis of mouse thymocytes and splenocytes. 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: 488-561 nm; Emission: 578 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser.

Filtration: 0.2 µm post-manufacturing filtered.

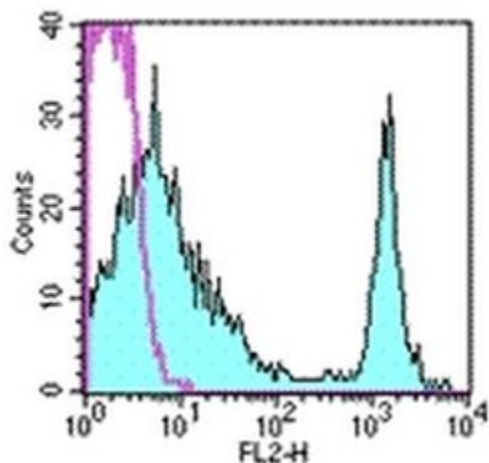
## Advanced Verification Data



### CD4 Antibody (12-0042-82)

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), PE, eBioscience™



### CD4 Antibody (12-0042-82) in Flow

Staining of BALB/c splenocytes with staining buffer (autofluorescence) (open histogram) or 0.125 µg of Anti-Mouse CD4 PE (filled histogram). Total viable cells were used for analysis.

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## Flow Cytometry (87)

Frontiers in immunology

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

"Published figure using CD4 monoclonal antibody (Product # 12-0042-82) 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

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 # 12-0042-82) 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

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

## Miscellaneous PubMed (2)

Journal of immunology (Baltimore, Md. : 1950)

### IFN-gamma promotes generation of IL-10 secreting CD4+ T cells that suppress generation of CD8 responses in an antigen-experienced host.

"12-0042 was used in Flow cytometry/Cell sorting to study the mechanism by which CD8 T cell response is inhibited by CD4(+) T cells in antigen-experienced hosts, showing that IL-10 secretion by CD4(+) cells is enhanced by IFN-gamma signalling, which then inhibits CD8 generation, suggesting that inhibition of IL-10 and IFN-gamma could increase antitumor effect when used in conjunction with antigen immunotherapy."

Authors: Liu XS, Leerberg J, MacDonald K, Leggatt GR, Frazer IH

**Species**  
Mouse

**Dilution**  
Not Cited

**Year**  
2009

PLoS pathogens

### Endothelial cells support persistent gammaherpesvirus 68 infection.

"12-0042 was used in Magnetic cell separation to investigate the role of endothelial cells in gammaherpesvirus 68 infection."

Authors: Suárez AL, van Dyk LF

**Species**  
Mouse

**Dilution**  
Not Cited

**Year**  
2008

## More applications with references on thermofisher.com

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