

# CD4 Monoclonal Antibody (RM4-5), PerCP-eFluor 710, 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), PerCP-eFluor 710, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	RM4-5
Conjugate	PerCP-eFluor™ 710
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_1834431

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.125 µg/test	46 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: This RM4-5 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This RM4-5 antibody has been tested by flow cytometric analysis of mouse spleen cells. 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.

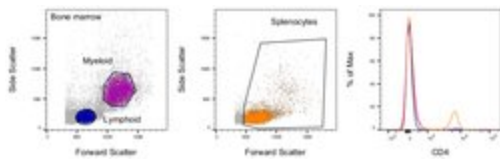
PerCP-eFluor® 710 emits at 710 nm and is excited with the blue laser (488 nm); it can be used in place of PerCP-Cyanine5.5. We recommend using a 710/50 bandpass filter, however, the 695/40 bandpass filter is an acceptable alternative. Please make sure that your instrument is capable of detecting this fluorochrome.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 µL cell sample + 100 µL IC Fixation Buffer) or 1-step Fix/Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 488 nm; Emission: 710 nm; Laser: Blue Laser.

Filtration: 0.2 µm post-manufacturing filtered.

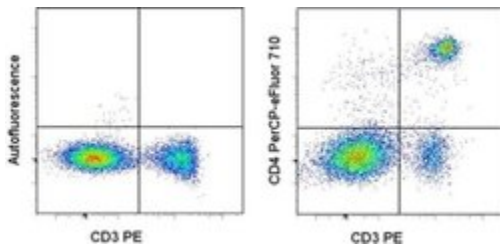
## Advanced Verification Data



### CD4 Antibody (46-0042-82)

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), PerCP-eFluor 710, eBioscience™



### CD4 Antibody (46-0042-82) in Flow

Staining of C57BL/6 splenocytes with Anti-Mouse CD3e PE (Product # 12-0031-82) and staining buffer (autofluorescence) (left) or 0.06 µg of Anti-Mouse CD4 PerCP-eFluor® 710 (right). Cells in the lymphocyte gate were used for analysis.

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## 46 References

### Flow Cytometry (46)

Frontiers in immunology

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

"Published figure using CD4 monoclonal antibody (Product # 46-0042-82) 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 # 46-0042-82) 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](#)

## More applications with references on thermofisher.com

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