

CD4 Monoclonal Antibody (RM4-5), eFluor™ 450, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), eFluor™ 450, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	RM4-5
Conjugate	eFluor™ 450
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_1272194

Applications	Tested Dilution	Publications
Immunohistochemistry (Frozen) (IHC (F))	-	3 Publications
Flow Cytometry (Flow)	0.125 µg/test	83 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.

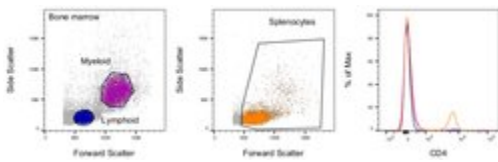
Applications Tested: This RM4-5 antibody has been tested by flow cytometric analysis of mouse splenocytes. This can be used at less than or equal to 0.125 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

eFluor® 450 is an alternative to Pacific Blue®. eFluor® 450 emits at 445 nm and is excited with the Violet laser (405 nm). Please make sure that your instrument is capable of detecting this fluorochrome.

Excitation: 405 nm; **Emission:** 445 nm; **Laser:** Violet Laser.

Filtration: 0.2 µm post-manufacturing filtered.

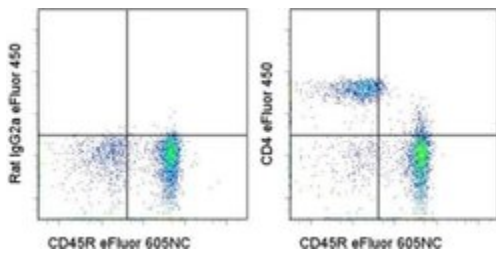
Advanced Verification Data



CD4 Antibody (48-0042-82)

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), eFluor™ 450, eBioscience™



CD4 Antibody (48-0042-82) in Flow

Staining of BALB/c splenocytes with Anti-Human/Mouse CD45R (B220) FITC (Product # 11-0452-82) eFluor® 605NC and 0.06 µg of Rat IgG2a kappa Isotype Control eFluor® 450 (Product # 48-4321-82) (left) or 0.06 µg of Anti-Mouse CD4 eFluor® 450 (right). Cells in the lymphocyte gate were used for analysis.

Immunohistochemistry (Frozen) (3)

Nature communications

Requirements for the differentiation of innate T-bet^{high} memory-phenotype CD4⁺ T lymphocytes under steady state.

"48-0042 was used in Immunohistochemistry on frozen tissues to study whether MP CD4+ T cells are functionally heterogeneous and, if so, what signals specify the differentiation of MP cell subpopulations under homeostatic conditions."

Authors: Kawabe T, Yi J, Kawajiri A, Hilligan K, Fang D, Ishii N, Yamane H, Zhu J, Jankovic D, Kim KS, Trinchieri G, Sher A

Species
Mouse

Dilution
Not Cited

Year
2020

PLoS pathogens

Suppression of Long-Lived Humoral Immunity Following *Borrelia burgdorferi* Infection.

"48-0042 was used in Immunohistochemistry on frozen tissues to show that *B. burgdorferi*-infection results in targeted and temporary immunosuppression of the host."

Authors: Elsner RA, Hastey CJ, Olsen KJ, Baumgarth N

Species
Mouse

Dilution
Not Cited

Year
2015

[View more IHC \(F\) references on thermofisher.com](#)

Flow Cytometry (83)

Frontiers in immunology

PRMT5 Promotes Cyclin E1 and Cell Cycle Progression in CD4 Th1 Cells and Correlates With EAE Severity.

"48-0042-82 was used in Flow Cytometry to demonstrate the role of protein arginine N-methyltransferase 5 in T cell activation during multiple sclerosis."

Authors: Amici SA, Osman W, Guerau-de-Arellano M

Species
Mouse

Dilution
Not Cited

Year
2021

The Journal of experimental medicine

Mapping and role of T cell response in SARS-CoV-2-infected mice.

"48-0042 was used in Flow cytometry/Cell sorting to demonstrate cross-reactive T cell responses between SARS-CoV and SARS-CoV-2, but not MERS-CoV, in mice."

Authors: Zhuang Z, Lai X, Sun J, Chen Z, Zhang Z, Dai J, Liu D, Li Y, Li F, Wang Y, Zhu A, Wang J, Yang W, Huang J, Li X, Hu L, Wen L, Zhuo J, Zhang Y, Chen D, Li S, Huang S, Shi Y, Zheng K, Zhong N, Zhao J, Zhou D, Zhao J

Species
Mouse

Dilution
Not Cited

Year
2021

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

More applications with references on thermofisher.com

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