

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

Product Details

Size	100 µg
Species Reactivity	Mouse
Published Species	Human, 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
Excitation/Emission Max	405/445 nm
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
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	98 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.

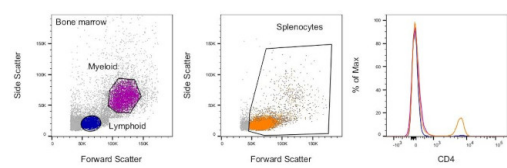
Applications Tested: This RM4-5 antibody has been tested by flow cytometric analysis of mouse splenocytes. This can be used at less than or equal to 0.125 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined 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.

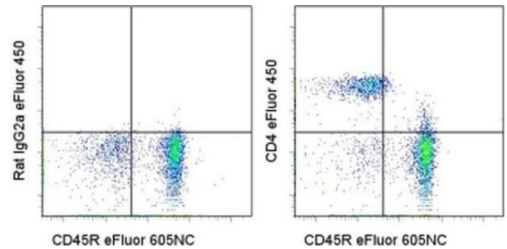
Excitation: 405 nm; Emission: 445 nm; Laser: Violet Laser.

Filtration: 0.2 µm post-manufacturing filtered.

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



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. {RE}



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.

101 References

Immunohistochemistry (Frozen) (3)

Nature communications	Year 2020
Requirements for the differentiation of innate T-bet^{high} memory-phenotype CD4⁺ T lymphocytes under steady state.	Species Mouse
"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	

PLoS pathogens	Year 2015
Suppression of Long-Lived Humoral Immunity Following Borrelia burgdorferi Infection.	Species Mouse
"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	

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

Flow Cytometry (98)

Therapeutic advances in chronic disease	Year 2023
Prevention of EAE by tolerogenic vaccination with PEGylated antigenic peptides.	Species Mouse
"48-0042-82 was used in Flow Cytometry to investigate whether the tolerogenic potential of immunodominant myelin T-cell epitopes can be improved by conjugation to the synthetic carrier polyethylene glycol (PEG) in an experimental autoimmune encephalomyelitis (EAE) mouse model for chronic MS (MOG C57BL/6)."	
Authors: Pfeil J,Simonetti M,Lauer U,von Thülen B,Durek P,Poulsen C,Pawlowska J,Kröger M,Krähmer R,Leenders F,Hoffmann U,Hamann A	

Engineered human cytokine/antibody fusion proteins expand regulatory T cells and confer autoimmune disease protection.

"48-0042-82 was used in Flow cytometry/Cell sorting to provide a roadmap for IC design and establish a Treg-biased immunotherapy that could be clinically translated for autoimmune disease treatment."

Authors: VanDyke D,Iglesias M,Tomala J,Young A,Smith J,Perry JA,Gebara E,Cross AR,Cheung LS,Dykema AG, Orcutt-Jahns BT,Henclová T,Golias J,Balolong J,Tomasovic LM,Funda D,Meyer AS,Pardoll DM,Hester J,Issa F,Hunter CA,Anderson MS,Bluestone JA,Raimondi G,Spangler JB

Year
2022

Species
Mouse

Dilution
1:100

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