

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

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Mouse
Host/Isotope	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
Flow Cytometry (Flow)	0.125 µg/test	65 Publications
Immunofluorescence (IF)	-	1 Publication
Immunohistochemistry (Frozen) (IHC (F))	-	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: This RM4-5 antibody has been reported for use in flow cytometric analysis.

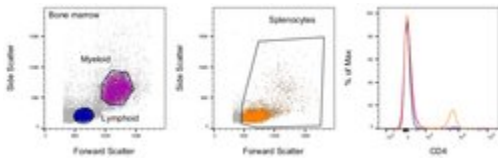
Applications Tested: This RM4-5 antibody has been tested by flow cytometric analysis of mouse splenocytes. This can be used at less than or equal to 0.125 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined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

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

Filtration: 0.2 µm post-manufacturing filtered.

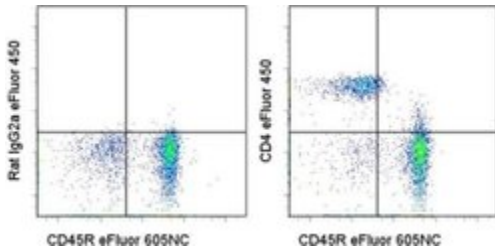
✓ Advanced Verification Data



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.

Flow Cytometry (65)

Oncoimmunology

Ionizing radiation sensitizes tumors to PD-L1 immune checkpoint blockade in orthotopic murine head and neck squamous cell carcinoma.

"48-0042 was used in Flow cytometry/Cell sorting to investigate whether local radiation can transform the tumour immune landscape and render poorly immunogenic head and neck squamous cell carcinoma tumours sensitive to PD-L1 inhibition."

Authors: Oweida A, Lennon S, Calame D, Korpela S, Bhatia S, Sharma J, Graham C, Binder D, Serkova N, Raben D, Heasley L, Clambey E, Nemenoff R, Karam SD

Species
Mouse

Dilution
Not Cited

Year
2020

Frontiers in endocrinology

The Severe Deficiency of the Somatotrope GH-Releasing Hormone /Growth Hormone/Insulin-Like Growth Factor 1 Axis of Mice Is Associated With an Important Splenic Atrophy and Relative B Lymphopenia.

"48-0042 was used in Flow cytometry/Cell sorting to examine the precise control exerted by the somatotrope growth hormone(GH)-releasing hormone/GH/insulin-like growth factor 1 axis on the immune system."

Authors: Bodart G, Farhat K, Renard-Charlet C, Becker G, Plenevaux A, Salvatori R, Geenen V, Martens H

Species
Mouse

Dilution
Not Cited

Year
2019

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

Immunofluorescence (1)

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

Immunohistochemistry (Frozen) (2)

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

More applications with references on thermofisher.com

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