

CD4 Monoclonal Antibody (RM4-5), Super Bright™ 645, 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), Super Bright™ 645, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	RM4-5
Conjugate	Super Bright™ 645
Excitation/Emission Max	414/645 nm
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2662401

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	8 Publications
Immunohistochemistry (PFA fixed) (IHC (PFA))	-	1 Publication
Immunohistochemistry (Frozen) (IHC (F))	-	1 Publication
Immunocytochemistry (ICC/IF)	-	3 Publications
Flow Cytometry (Flow)	0.25 µg/test	60 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.
^M

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

Applications 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 0.25 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.
^M

Super Bright 645 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 645 nm. We recommend using a 660/20 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome. ^M

^M

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer for more information.^M

^M

Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Protect this vial and stained samples from light. ^M

^M

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100 μ L of cell sample + 100 μ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 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.^M

^M

Excitation: 405 nm; Emission: 645 nm; Laser: Violet Laser^M

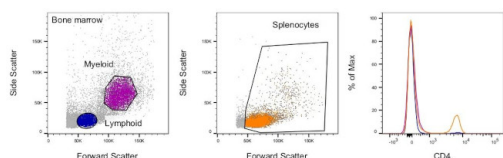
^M

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

Product Images For CD4 Monoclonal Antibody (RM4-5), Super Bright™ 645, eBioscience™

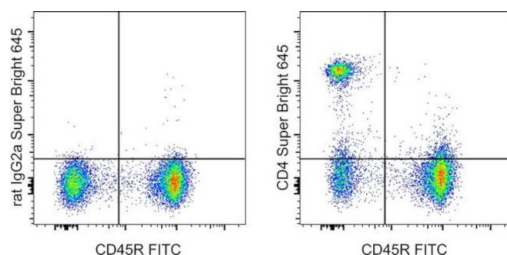
CD4 Antibody (64-0042-82)

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 (64-0042-82) in Flow

Staining of C57BL/6 splenocytes with Anti-Human/Mouse CD45R (B220) FITC (Product # 11-0452-82) and Rat IgG2a K Isotype Control (Product # 64-4321-82) (left) or 0.125 μ g of Anti-Mouse CD4 Super Bright 645 (right). Cells in the lymphocyte gate were used for analysis.



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Immunohistochemistry (8)

Cells

Complete Freund's Adjuvant Induces a Fibroblast-like Synoviocytes (FLS) Metabolic and Migratory Phenotype in Resident Fibroblasts of the Inoculated Footpad at the Earliest Stage of Adjuvant-Induced Arthritis.

"Published figure using CD4 monoclonal antibody (Product # 64-0042-82) in Immunohistochemistry"

Authors: González-Chávez SA, Chaparro-Barrera E, Alvarado-Jáquez MF, Cuevas-Martínez R, Ochoa-Albíztegui RE, Pacheco-Tena C

Year
2023

Frontiers in immunology

Black raspberry extract inhibits regulatory T-cell activity in a murine model of head and neck squamous cell carcinoma chemoprevention.

"Published figure using CD4 monoclonal antibody (Product # 64-0042-82) in Immunohistochemistry"

Authors: Ryan NM, Lamenza FF, Upadhaya P, Pracha H, Springer A, Swingler M, Siddiqui A, Oghumu S

Year
2022

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

Immunohistochemistry (PFA fixed) (1)

Immunity

T Cell Recruitment to the Intestinal Stem Cell Compartment Drives Immune-Mediated Intestinal Damage after Allogeneic Transplantation.

"Published figure using CD4 monoclonal antibody (Product # 64-0042-82) in Immunocytochemistry"

Authors: Fu YY, Egorova A, Sobieski C, Kuttiyara J, Calafiore M, Takashima S, Clevers H, Hanash AM

Year
2019

Immunohistochemistry (Frozen) (1)

Biology

Increased Levels of IL-16 in the Central Nervous System during Neuroinflammation Are Associated with Infiltrating Immune Cells and Resident Glial Cells.

"Published figure using CD4 monoclonal antibody (Product # 64-0042-82) in Immunohistochemistry (Frozen)"

Authors: Hridi SU, Barbour M, Wilson C, Franssen AJ, Harte T, Bushell TJ, Jiang HR

Year
2021

More applications with references on thermofisher.com

ICC/IF (3) Flow (60)

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