

CD4 Monoclonal Antibody (RM4-5), Super Bright™ 702, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), Super Bright™ 702, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	RM4-5
Conjugate	Super Bright™ 702
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_2662399

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	4 Publications
Immunohistochemistry (PFA fixed) (IHC (PFA))	-	1 Publication
Immunohistochemistry (Frozen) (IHC (F))	-	1 Publication
Immunocytochemistry (ICC/IF)	-	3 Publications
Flow Cytometry (Flow)	0.125 µg/test	34 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 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 0.125 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.

Super Bright 702 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 702 nm. We recommend using a 710/50 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Staining Buffer (cat. SB-4400) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer.

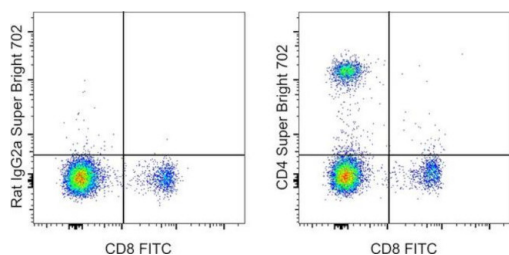
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 μ L of cell sample + 100 μ L of 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: 405 nm; Emission: 702 nm; Laser: Violet Laser

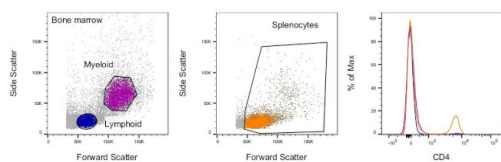
Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

Product Images For CD4 Monoclonal Antibody (RM4-5), Super Bright™ 702, eBioscience™



CD4 Antibody (67-0042-82) in Flow

Staining of BALB/c splenocytes with Anti-Mouse CD8 FITC (Product # 11-0081-82) and Rat IgG2a K Isotype Control (Product # 67-4321-82) (left) or 0.125 μ g of Anti-Mouse CD4 Super Bright 702 (right). Cells in the lymphocyte gate were used for analysis.



CD4 Antibody (67-0042-82)

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}

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43 References

Immunohistochemistry (4)

Cancers

Epithelial Mutant p53 Promotes Resistance to Anti-PD-1-Mediated Oral Cancer Immunoprevention in Carcinogen-Induced Mouse Models.

"Published figure using CD4 monoclonal antibody (Product # 67-0042-82) in Immunohistochemistry"

Authors: Wang J,Hu Y,Escamilla-Rivera V,Gonzalez CL,Tang L,Wang B,El-Naggar AK,Myers JN,Caulin C

Year
2021

Advanced science (Weinheim, Baden-Wurttemberg, Germany)

Prodrug-Loaded Zirconium Carbide Nanosheets as a Novel Biophotonic Nanoplatfrom for Effective Treatment of Cancer.

"Published figure using CD4 monoclonal antibody (Product # 67-0042-82) in Immunohistochemistry"

Authors: Liu Q,Xie Z,Qiu M,Shim I,Yang Y,Xie S,Yang Q,Wang D,Chen S,Fan T,Ding B,Guo Z,Adah D,Yao X,Zhang Y, Wu H,Wu Z,Wei C,Wang H,Kim HS,Zou Q,Yan Q,Cai Z,Kim JS,Liu LP,Zhang H,Cao Y

Year
2020

[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 # 67-0042-82) 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 # 67-0042-82) in Immunohistochemistry (Frozen)"

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

Year
2021

More applications with references on thermofisher.com

ICC/IF (3) **Flow (34)**

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