CD4 Monoclonal Antibody (RM4-5), FITC, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Mouse, Human
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), FITC, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	RM4-5
Conjugate	FITC
Form	Liquid
Concentration	0.5 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_464896

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	2 Publications
Immunohistochemistry (Paraffin) (IHC (P))	-	1 Publication
Immunohistochemistry (Frozen) (IHC (F))	-	5 Publications
Immunocytochemistry (ICC/IF)	-	5 Publications
Flow Cytometry (Flow)	0.25 µg/test	219 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.

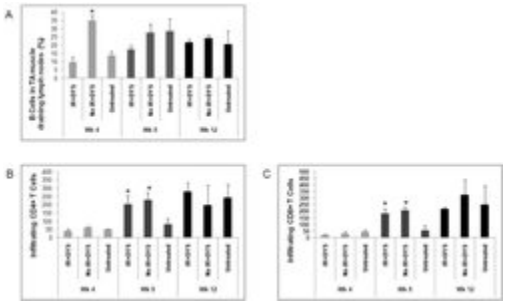
Applications Reported: The RM4-5 antibody has been reported for use in flow cytometric analysis.

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 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

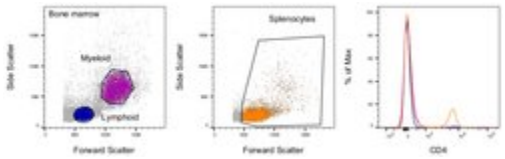
Excitation: 488 nm; Emission: 520 nm; Laser: Blue Laser.

Filtration: 0.2 µm post-manufacturing filtered.

Advanced Verification Data

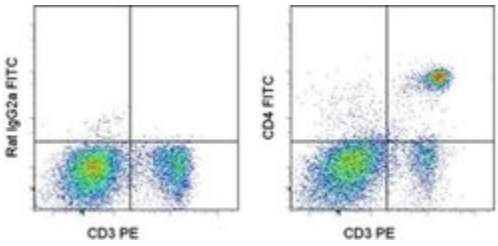


CD4 Antibody (11-0042-82)
Fig. 2 Infiltrating T cells, but not peripheral lymphocytes from vector-injected muscle draining lymph nodes in low-dose irradiated mdx mice are different from untreated mdx muscle (A) The B cell population in draining lymph nodes was analyzed by flow cytometry in low-dose irradiated and non-irradiated mdx mice at 4, 8, and 12 weeks post-treatment. Infiltrating CD4 + (B) and CD8 + (C) T cells were examined by immunohistochemistry in the treated muscles of low-dose irradiated and non-irradiated mdx mice at the three time points mentioned above. Number of mice in each group is the same as in Fig. 1 . Data is expressed as mean +- standard error (SE). * (P <0.05) indicates significant difference from untreated mdx control. Cell treatment validation info.



CD4 Antibody (11-0042-82)
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), FITC, eBioscience™



CD4 Antibody (11-0042-82) in Flow
Staining of C57BL/6 splenocytes with Anti-Mouse CD3e PE (Product # 12-0031-82) and 0.125 µg of Rat IgG2a K Isotype Control FITC (Product # 11-4321-42) (left) or 0.125 µg of Anti-Mouse CD4 FITC (right). Cells in the lymphocyte gate were used for analysis.

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232 References

Immunohistochemistry (2)

Cancer prevention research (Philadelphia, Pa.)

PD-1 Blockade Prevents the Development and Progression of Carcinogen-Induced Oral Premalignant Lesions.

"Published figure using CD4 monoclonal antibody (Product # 11-0042-82) in Immunohistochemistry"

Authors: Wang J,Xie T,Wang B,William WN,Heymach JV,El-Naggar AK,Myers JN,Caulin C

Species
Not Applicable

Dilution
Not Cited

Year
2017

Nature communications

dNP2 is a blood-brain barrier-permeable peptide enabling ctCTLA-4 protein delivery to ameliorate experimental autoimmune encephalomyelitis.

"Published figure using CD4 monoclonal antibody (Product # 11-0042-82) in Flow Cytometry"

Authors: Lim S,Kim WJ,Kim YH,Lee S,Koo JH,Lee JA,Yoon H,Kim DH,Park HJ,Kim HM,Lee HG,Yun Kim J,Lee JU,Hun Shin J,Kyun Kim L,Doh J,Kim H,Lee SK,Bothwell ALM,Suh M,Choi JM

Species
Not Applicable

Dilution
Not Cited

Year
2015

Immunohistochemistry (Paraffin) (1)

PloS one

Anti-CD154 mAb and rapamycin induce T regulatory cell mediated tolerance in rat-to-mouse islet transplantation.

"11-0042 was used in Immunohistochemistry on paraffin embedded tissues to investigate the effect of combined RAPA /MR1 treatment on rat-to-mouse islet xenograft survival, showing that it induces T regulatory cell mediated tolerance."

Authors: Muller YD,Mai G,Morel P,Serre-Beinier V,Gonelle-Gispert C,Yung GP,Ehirchiou D,Wyss JC,Bigenzahn S,Irla M,Heusser C,Golshayan D,Seebach JD,Wekerle T,Bühler LH

Species
Mouse

Dilution
Not Cited

Year
2010

Immunohistochemistry (Frozen) (5)

Frontiers in immunology

Early IL-1 Signaling Promotes iBALT Induction after Influenza Virus Infection.

"11-0042 was used in Immunohistochemistry to demonstrate that innate IL-1-IL-1R signalling is necessary for influenza A virus clearance and induction of CXCL13 early after infection."

Authors: Neyt K,GeurtsvanKessel CH,Deswarte K,Hammad H,Lambrecht BN

Species
Mouse

Dilution
Not Cited

Year
2016

View more IHC (F) references on thermofisher.com

More applications with references on thermofisher.com

ICC/IF (5) **Flow (219)**

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