

# CD4 Monoclonal Antibody (GK1.5), Alexa Fluor 700, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Fish, Human, Mouse
Host/Isotope	Rat / IgG2b, kappa
Recommended Isotype Control	Rat IgG2b kappa Isotype Control (eB149/10H5), Alexa Fluor 700, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	GK1.5
Conjugate	Alexa Fluor® 700
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_493999

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.125 µg/test	86 Publications
Functional Assay (FN)	-	2 Publications
Immunofluorescence (IF)	-	9 Publications
Immunohistochemistry (IHC)	-	6 Publications

## Product Specific Information

**Description:** The GK1.5 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 GK1.5 is blocked by RM4-5.

**Applications Reported:** This GK1.5 antibody has been reported for use in flow cytometric analysis.

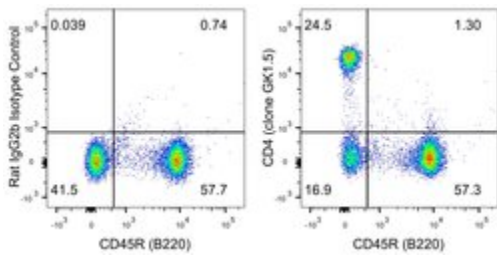
**Applications Tested:** This GK1.5 antibody has been tested by flow cytometric analysis of mouse thymocyte and splenocyte suspensions. This can be used at less than or equal to 0.125 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells /test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Alexa Fluor® 700 emits at 723 nm and can be excited with the red laser (633 nm). Most instruments will require a 685 LP mirror and 710/20 filter. Please make sure that your instrument is capable of detecting this fluorochrome.

Excitation: 633-647 nm; Emission: 723 nm; Laser: Red Laser.

Filtration: 0.2 µm post-manufacturing filtered.

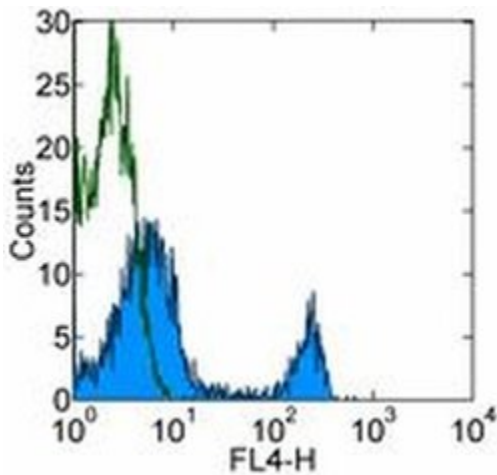
## Advanced Verification Data



### CD4 Antibody (56-0041-82)

Staining of mouse splenocytes. As expected based on known relative expression patterns, CD4 clone GK1.5 stains about 25% of total lymphocytes and does not stain CD45R (B220)+ B cells. Details: Balb/c splenocytes were surface stained with CD45R (B220, clone RA3-6B2) and Rat IgG2b Isotype Control or CD4 (clone GK1.5). Cells in the lymphocyte gate were used for analysis. Relative expression validation info.

## Product Images For CD4 Monoclonal Antibody (GK1.5), Alexa Fluor 700, eBioscience™



### CD4 Antibody (56-0041-82) in Flow

Staining of C57BL/6 splenocytes with staining buffer (autofluorescence) (open histogram) or 0.06 µg of Anti-Mouse CD4 Alexa Fluor® 700 (filled histogram). Cells in the lymphocyte gate were used for analysis.

[View more figures on thermofisher.com](https://www.thermofisher.com)

## Immunofluorescence (9)

Frontiers in physiology

### Shifts in the Gut Microbiota Composition Due to Depleted Bone Marrow Beta Adrenergic Signaling Are Associated with Suppressed Inflammatory Transcriptional Networks in the Mouse Colon.

"Published figure using CD4 monoclonal antibody (Product # 56-0041-82) in Immunofluorescence"

Authors: Yang T,Ahmari N,Schmidt JT,Redler T,Arocha R,Pacholec K,Magee KL,Malphurs W,Owen JL,Krane GA,Li E,Wang GP,Vickroy TW,Raizada MK,Martyniuk CJ,Zubcevic J

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2020

Scientific reports

### Heavy Chain-Hyaluronan/Pentraxin 3 from Amniotic Membrane Suppresses Inflammation and Scarring in Murine Lacrimal Gland and Conjunctiva of Chronic Graft-versus-Host Disease.

"Published figure using CD4 monoclonal antibody (Product # 56-0041-82) in Immunofluorescence"

Authors: Ogawa Y,He H,Mukai S,Imada T,Nakamura S,Su CW,Mahabole M,Tseng SC,Tsubota K

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2017

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

## Flow Cytometry (86)

Evidence-based complementary and alternative medicine : eCAM

### Baicalin Downregulates RLRs Signaling Pathway to Control Influenza A Virus Infection and Improve the Prognosis.

"Published figure using CD4 monoclonal antibody (Product # 56-0041-82) in Flow Cytometry"

Authors: Pang P,Zheng K,Wu S,Xu H,Deng L,Shi Y,Chen X

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2020

Frontiers in pharmacology

### Traditional Herbal Medicine-Derived Sulforaphene LFS-01 Reverses Colitis in Mice by Selectively Altering the Gut Microbiota and Promoting Intestinal Gamma-Delta T Cells.

"Published figure using CD4 monoclonal antibody (Product # 56-0041-82) in Flow Cytometry"

Authors: Li M,Gao J,Tang Y,Liu M,Wu S,Qu K,Long X,Li H,Liu M,Liu Y,Yuan J,Mao L,Liu Y,Zheng X,Wang E,Wang J, Yang Y

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2020

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

## More applications with references on thermofisher.com

IHC (6) FN (2)

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization. Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.