

# CD4 Monoclonal Antibody (GK1.5), PE-Cyanine5, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Fungi, Fish, Mouse, Human
Host/Isotope	Rat / IgG2b, kappa
Recommended Isotype Control	Rat IgG2b kappa Isotype Control (eB149/10H5), PE-Cyanine5, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	GK1.5
Conjugate	PE-Cyanine5
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_468695

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.06 µg/test	105 Publications
Functional Assay (FN)	-	2 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:** The GK1.5 antibody has been reported for use in flow cytometric analysis.

**Applications Tested:** The GK1.5 antibody has been tested by flow cytometric analysis of mouse thymocytes and splenocytes. This can be used at less than or equal to 0.06 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.

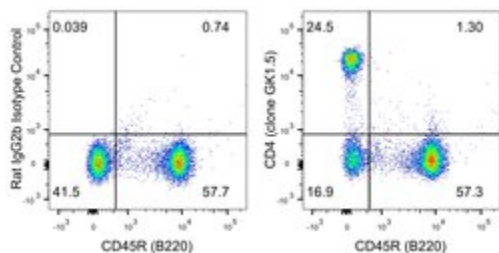
**Light sensitivity:** This tandem dye is sensitive photo-induced oxidation. Please protect this vial and stained samples from light.

**Fixation:** Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 µL cell sample + 100 µL 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: 488-561 nm; Emission: 667 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser.

Filtration: 0.2 µm post-manufacturing filtered.

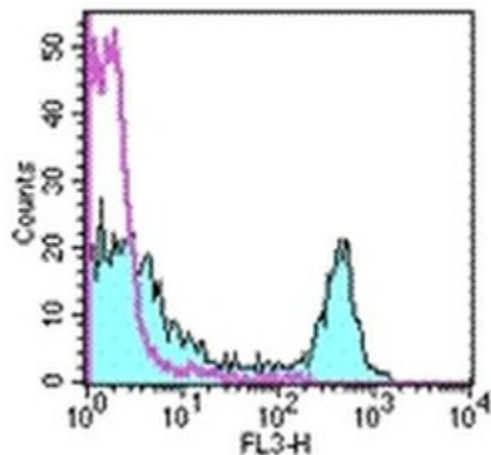
## Advanced Verification Data



### CD4 Antibody (15-0041-82)

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), PE-Cyanine5, eBioscience™



### CD4 Antibody (15-0041-82) in Flow

Staining of C57Bl/6 splenocytes with staining buffer (autofluorescence) (open histogram) or 0.03 µg of Anti-Mouse CD4 PE-Cyanine5 (filled histogram). Total cells were used for analysis.

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

## Flow Cytometry (105)

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 # 15-0041-82) 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 # 15-0041-82) 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](#)

## Functional Assay (2)

Investigative ophthalmology and visual science

### Suppression of alkali burn-induced corneal neovascularization by dendritic cell vaccination targeting VEGF receptor 2.

Authors: Mochimaru H,Usui T,Yaguchi T,Nagahama Y,Hasegawa G,Usui Y,Shimmura S,Tsubota K,Amano S, Kawakami Y,Ishida S

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2008

Circulation

### Myocardial infarct-sparing effect of adenosine A2A receptor activation is due to its action on CD4+ T lymphocytes.

Authors: Yang Z,Day YJ,Toufektsian MC,Xu Y,Ramos SI,Marshall MA,French BA,Linden J

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2006

## More applications with references on thermofisher.com

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