

# CD4 Monoclonal Antibody (GK1.5), Biotin, eBioscience™

Product Details	
Size	100 µg
Species	Mouse
Published Species	Artificial Control, Fish, Mouse, Human
Expression System	Rat / IgG2b, kappa
Recommended Isotype Control	Rat IgG2b kappa Isotype Control (eB149/10H5), Biotin, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	GK1.5
Conjugate	Biotin
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_466325

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.25 µg/test	98 Publications
Functional Assay (FN)	-	3 Publications
Immunofluorescence (IF)	-	13 Publications
Immunohistochemistry (Frozen) (IHC (F))	-	1 Publication
Immunohistochemistry (IHC)	-	10 Publications
Miscellaneous PubMed (Misc)	-	5 Publications

## Product Specific Information

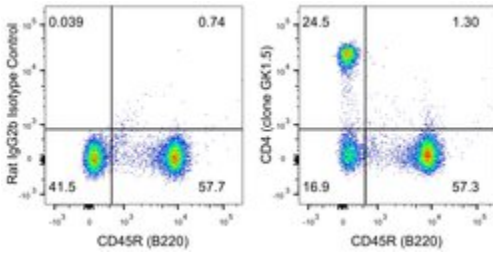
**Description:** The GK1.5 monoclonal antibody reacts with the mouse CD4 molecule, a 55 kDa cell surface receptor expressed by a majority of thymocytes, subpopulation of mature T cells and dendritic cells. CD4 binds to MHC class II on the surface of antigen presenting cells and plays an important role 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 0.25 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<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.

Filtration: 0.2 µm post-manufacturing filtered.

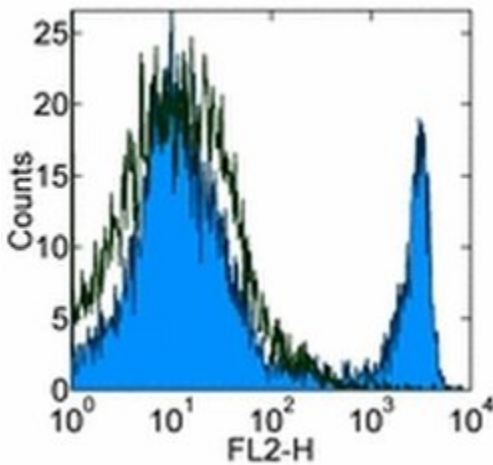
## Advanced Verification Data



### CD4 Antibody (13-0041-82)

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), Biotin, eBioscience™



### CD4 Antibody (13-0041-82) in Flow

Staining of C57BL/6 splenocytes with 0.125 µg of Rat IgG2b kappa Isotype Control Biotin (Product # 13-4031-82) (open histogram) or 0.125 µg of Anti-Mouse CD4 Biotin (filled histogram) followed by Streptavidin PE (Product # 12-4317-87). Total viable cells were used for analysis.

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

## Flow Cytometry (98)

### Oncoimmunology

#### Compensatory upregulation of PD-1, LAG-3, and CTLA-4 limits the efficacy of single-agent checkpoint blockade in metastatic ovarian cancer.

"Published figure using CD4 monoclonal antibody (Product # 13-0041-82) in Flow Cytometry"

Authors: Huang RY, Francois A, McGray AR, Miliotto A, Odunsi K

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2021

### Therapeutic advances in chronic disease

#### Lactobacillus rhamnosus GG attenuates tenofovir disoproxil fumarate-induced bone loss in male mice via gut-microbiota-dependent anti-inflammation.

"Published figure using CD4 monoclonal antibody (Product # 13-0041-82) in Flow Cytometry"

Authors: Liu H, Gu R, Li W, Zhou W, Cong Z, Xue J, Liu Y, Wei Q, Zhou Y

**Species**  
Artificial Control

**Dilution**  
Not Cited

**Year**  
2020

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

## Immunofluorescence (13)

### 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 # 13-0041-82) 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

### Frontiers in immunology

#### CD4 T Helper Cells Instruct Lymphopenia-Induced Memory-Like CD8 T Cells for Control of Acute LCMV Infection.

"13-0041 was used in Immunohistochemistry-immunofluorescence to determine whether memory-like T cells can efficiently respond to foreign antigen and participate in antiviral immunity."

Authors: Schmitt ME, Sitte S, Voehringer D

**Species**  
Mouse

**Dilution**  
Not Cited

**Year**  
2019

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

## More applications with references on thermofisher.com

Misc (5) IHC (10) FN (3) IHC (F) (1)

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