

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

| Product Details             |  |
|-----------------------------|--|
| Size                        | 100 µg   |
| Species Reactivity          | Mouse  |
| Published Species           | Fish, Mouse, Human   |
| Host/Isotope                | Rat / IgG2b, kappa   |
| Recommended Isotype Control | Rat IgG2b kappa Isotype Control (eB149/10H5), PE, eBioscience™ |
| Class                       | Monoclonal   |
| Type                        | Antibody   |
| Clone                       | GK1.5  |
| Conjugate                   | PE   |
| 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_465506  |

| Applications                            | Tested Dilution | Publications     |
|---|-----------------|------------------|
| Flow Cytometry (Flow)                   | 0.125 µg/test   | 187 Publications |
| Functional Assay (FN)                   | -               | 3 Publications   |
| Immunofluorescence (IF)                 | -               | 3 Publications   |
| Immunohistochemistry (Frozen) (IHC (F)) | -               | 2 Publications   |
| Immunohistochemistry (IHC)              | -               | 1 Publication    |
| Miscellaneous PubMed (Misc)             | -               | 2 Publications   |
| Western Blot (WB)                       | -               | 1 Publication    |

## 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.

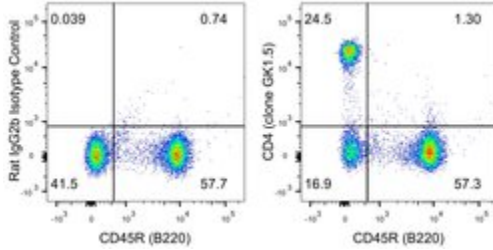
**Applications Tested:** The GK1.5 antibody has been tested by flow cytometric analysis of mouse thymocytes and splenocytes. This can be used at less than or equal to 0.125 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number 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.

Excitation: 488-561 nm; Emission: 578 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser.

Filtration: 0.2 µm post-manufacturing filtered.

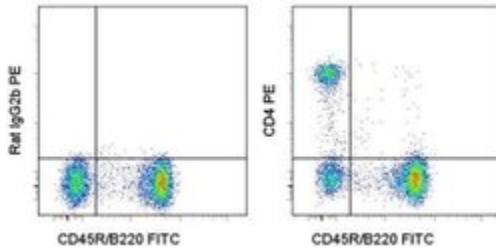
## Advanced Verification Data



### CD4 Antibody (12-0041-82)

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, eBioscience™



### CD4 Antibody (12-0041-82) in Flow

Staining of C57BL/6 splenocytes with Anti-Human/Mouse CD45R (B220) FITC (Product # 11-0452-82) and 0.06 µg of Rat IgG2b K Isotype Control PE (Product # 12-4031-82) (left) or 0.06 µg of Anti-Mouse CD4 PE (right). Total viable cells were used for analysis.

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

## Flow Cytometry (187)

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 # 12-0041-82) 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 # 12-0041-82) 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](#)

## Immunofluorescence (3)

PLoS pathogens

### Experimental cerebral malaria pathogenesis--hemodynamics at the blood brain barrier.

"12-0041 was used in Immunofluorescence to show that significantly more CD8(+) T cells, neutrophils, and macrophages are recruited to postcapillary venules during ECM compared to hyperparasitemia."

Authors: Nacer A,Movila A,Sohet F,Girgis NM,Gundra UM,Loke P,Daneman R,Frevert U

**Species**  
Mouse

**Dilution**  
Not Cited

**Year**  
2014

Journal of the American Society of Nephrology : JASN

### PGD2-CRTH2 pathway promotes tubulointerstitial fibrosis.

"12-0041 was used in Flow cytometry/Cell sorting to explore the contribution of L-PGDS to the development of chronic kidney disease."

Authors: Ito H,Yan X,Nagata N,Aritake K,Katsumata Y,Matsuhashi T,Nakamura M,Hirai H,Urade Y,Asano K,Kubo M, Utsunomiya Y,Hosoya T,Fukuda K,Sano M

**Species**  
Mouse

**Dilution**  
Not Cited

**Year**  
2012

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

## More applications with references on thermofisher.com

IHC (1) IHC (F) (2) Misc (2) FN (3) WB (1)

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