

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

## Product Details

Size	100 µg
Species Reactivity	Mouse
Published Species	Fungi, Rat, Fish, Mouse, Human
Host/Isotype	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
Excitation/Emission Max	568/666 nm
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
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	197 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.

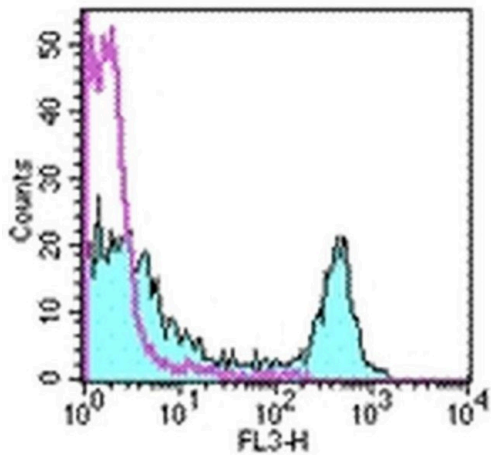
**Light sensitivity:** This tandem dye is sensitive photo-induced oxidation. Please protect this vial and stained samples from light.

**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.

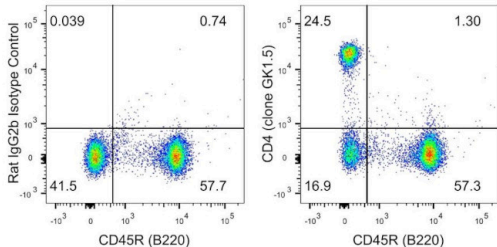
Filtration: 0.2 µm post-manufacturing filtered.

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.



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. {RE}

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Flow Cytometry (197)

<p>Theranostics</p> <p><b>HSF1 promotes CD69<sup>+</sup> Treg differentiation to inhibit colitis progression.</b></p> <p>"Published figure using CD4 monoclonal antibody (Product # 15-0041-82) in Flow Cytometry"</p> <p>Authors: Yu L,Zhou B,Zhu Y,Li L,Zhong Y,Zhu L,Wang H,Chen H,Xu J,Guo T,Feng L,Wang X,Cai Z,Wang J,Jin H</p>	<p>Year 2023</p>
<p>Journal of immunology (Baltimore, Md. : 1950)</p> <p><b>Prolidase Deficiency Causes Spontaneous T Cell Activation and Lupus-like Autoimmunity.</b></p> <p>"Published figure using CD4 monoclonal antibody (Product # 15-0041-82) in Flow Cytometry"</p> <p>Authors: Hodgson R,Crockford TL,Bhandari A,Kepple JD,Back J,Cawthorne E,Abeler-Dörner L,Laing AG,Clare S,Speak A,Adams DJ,Dougan G,Hayday AC,Deobagkar-Lele M,Cornall RJ,Bull KR</p>	<p>Year 2023</p>

View more Flow references on thermofisher.com

Functional Assay (2)

<p>Investigative ophthalmology &amp; visual science</p> <p><b>Suppression of alkali burn-induced corneal neovascularization by dendritic cell vaccination targeting VEGF receptor 2.</b></p> <p>Authors: Mochimaru H,Usui T,Yaguchi T,Nagahama Y,Hasegawa G,Usui Y,Shimmura S,Tsubota K,Amano S,Kawakami Y,Ishida S</p>	<p>Year 2008</p>
<p>Circulation</p> <p><b>Myocardial infarct-sparing effect of adenosine A2A receptor activation is due to its action on CD4<sup>+</sup> T lymphocytes.</b></p> <p>Authors: Yang Z,Day YJ,Toufektsian MC,Xu Y,Ramos SI,Marshall MA,French BA,Linden J</p>	<p>Year 2006</p>

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