

# CD4 Monoclonal Antibody (GK1.5), PerCP-eFluor™ 710, eBioscience™

Product Details	
Size	25 µg
Species Reactivity	Mouse
Published Species	Fish, Mouse, Human
Host/Isotype	Rat / IgG2b, kappa
Recommended Isotype Control	Rat IgG2b kappa Isotype Control (eB149/10H5), PerCP-eFluor™ 710, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	GK1.5
Conjugate	PerCP-eFluor™ 710
Excitation/Emission Max	482/708 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_11149869

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.125 µg/test	155 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:** 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 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.

PerCP-eFluor® 710 emits at 710 nm and is excited with the blue laser (488 nm); it can be used in place of PerCP-Cyanine5.5. We recommend using a 710/50 bandpass filter, however, the 695/40 bandpass filter is an acceptable alternative. Please make sure that your instrument is capable of detecting this fluorochrome.

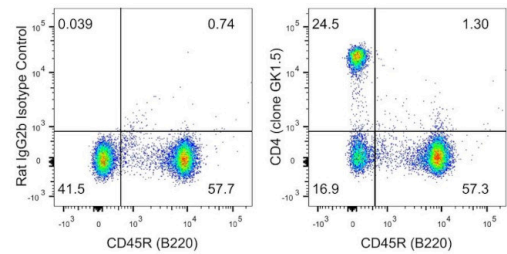
**Fixation:** Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 µL cell sample + 100 µL IC Fixation Buffer) or 1-step

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.

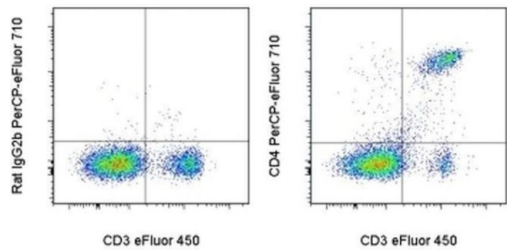
Excitation: 488 nm; Emission: 710 nm; Laser: Blue Laser.

Filtration: 0.2 µm post-manufacturing filtered.

**Product Images For CD4 Monoclonal Antibody (GK1.5), PerCP-eFluor™ 710, eBioscience™**



**CD4 Antibody (46-0041-80)**  
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}



**CD4 Antibody (46-0041-80) in Flow**  
Staining of BALB/c splenocytes with Anti-Mouse CD3 eFluor® 450 (Product # 48-0032-82) and 0.06 µg of Rat IgG2b K Isotype Control PerCP-eFluor® 710 (Product # 46-4031-82) (left) or 0.06 µg of Anti-Mouse CD4 PerCP-eFluor® 710 (right). Cells in the lymphocyte gate were used for analysis.

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Flow Cytometry (155)

Theranostics	Year 2023
<b>HSF1 promotes CD69<sup>+</sup> Treg differentiation to inhibit colitis progression.</b>	
"Published figure using CD4 monoclonal antibody (Product # 46-0041-82) in Flow Cytometry"	
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	

Journal of immunology (Baltimore, Md. : 1950)	Year 2023
<b>Prolidase Deficiency Causes Spontaneous T Cell Activation and Lupus-like Autoimmunity.</b>	
"Published figure using CD4 monoclonal antibody (Product # 46-0041-82) in Flow Cytometry"	
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	

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

Functional Assay (2)

Investigative ophthalmology & visual science	Year 2008
<b>Suppression of alkali burn-induced corneal neovascularization by dendritic cell vaccination targeting VEGF receptor 2.</b>	
Authors: Mochimaru H,Usui T,Yaguchi T,Nagahama Y,Hasegawa G,Usui Y,Shimmura S,Tsubota K,Amano S,Kawakami Y,Ishida S	

Circulation	Year 2006
<b>Myocardial infarct-sparing effect of adenosine A2A receptor activation is due to its action on CD4<sup>+</sup> T lymphocytes.</b>	
Authors: Yang Z,Day YJ,Toufektsian MC,Xu Y,Ramos SI,Marshall MA,French BA,Linden J	

More applications with references on thermofisher.com

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