

CD4 Monoclonal Antibody (GK1.5), Functional Grade, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Hamster, Fish, Mouse, Human
Host/Isotope	Rat / IgG2b, kappa
Recommended Isotype Control	Rat IgG2b kappa Isotype Control (eB149/10H5), Functional Grade, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	GK1.5
Conjugate	Functional Grade
Form	Liquid
Concentration	1 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	no preservative
Storage Conditions	4° C
RRID	AB_468861

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.125 µg/test	114 Publications
Functional Assay (FN)	Assay-Dependent	9 Publications
Neutralization (Neu)	Assay-Dependent	4 Publications
ELISA (ELISA)	-	3 Publications
Immunofluorescence (IF)	-	11 Publications
Immunohistochemistry (Frozen) (IHC (F))	-	1 Publication
Immunohistochemistry (IHC)	-	10 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. It has also been reported in isolation and depletion of CD4+ cells, blocking of ligand binding and T cell activation via CD4.

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 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Storage and handling: Use in a sterile environment.

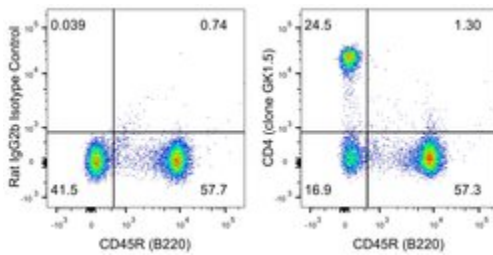
Filtration: 0.2 µm post-manufacturing filtered.

Purity: Greater than 90%, as determined by SDS-PAGE.

Endotoxin Level: Less than 0.001 ng/µg antibody, as determined by LAL assay.

Aggregation: Less than 10%, as determined by HPLC.

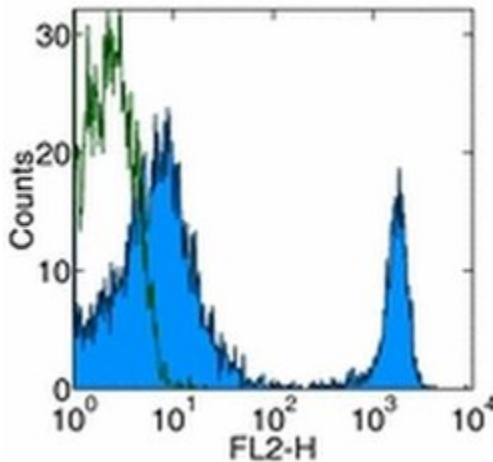
Advanced Verification Data



CD4 Antibody (16-0041-82)

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), Functional Grade, eBioscience™



CD4 Antibody (16-0041-82) in Flow

Staining of mouse splenocytes with Anti-Mouse CD4 PE. Appropriate isotype controls were used (open histogram). Total viable cells were used for analysis.

View more figures on thermofisher.com

Immunofluorescence (11)

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 # 16-0041-82) 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

Scientific reports

Intestinal microbiota link lymphopenia to murine autoimmunity via PD-1⁺ CXCR5^{-dim} B-helper T cell induction.

"16-0041 was used in Immunofluorescence to study the relationship between lymphopenia and murine autoimmunity, mediated by the intestinal microbiota."

Authors: Eri T,Kawahata K,Kanzaki T,Imamura M,Michishita K,Akahira L,Bannai E,Yoshikawa N,Kimura Y,Satoh T,Uematsu S,Tanaka H,Yamamoto K

Species
Mouse

Dilution
Not Cited

Year
2017

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

Flow Cytometry (114)

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 # 16-0041-82) 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 # 16-0041-82) 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](#)

More applications with references on thermofisher.com

FN (9) **IHC (10)** **Neu (4)** **IHC (F) (1)** **ELISA (3)**

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