

CD4 Monoclonal Antibody (GK1.5), Super Bright™ 702, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Host/Isotype	Rat / IgG2b, kappa
Recommended Isotype Control	Rat IgG2b kappa Isotype Control (eB149/10H5), Super Bright™ 702, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	GK1.5
Conjugate	Super Bright™ 702
Excitation/Emission Max	413/702 nm
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2722963

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	5 Publications
Immunohistochemistry (Frozen) (IHC (F))	-	1 Publication
Immunocytochemistry (ICC/IF)	-	2 Publications
Flow Cytometry (Flow)	0.25 µg/test	72 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 0.25 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 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Super Bright 702 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 702 nm. We recommend using a 710/50 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright

Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer for more information.

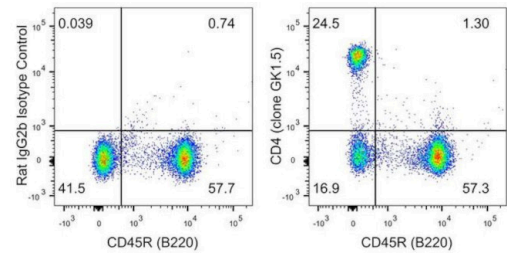
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100 µL of cell sample + 100 µL of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 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.

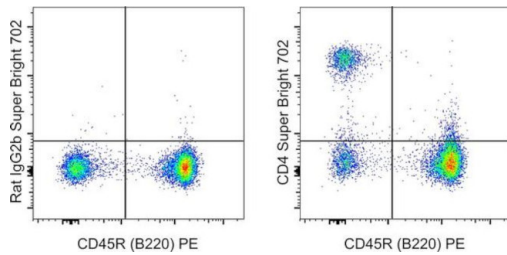
Excitation: 405 nm; Emission: 702 nm; Laser: Violet Laser

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

Product Images For CD4 Monoclonal Antibody (GK1.5), Super Bright™ 702, eBioscience™



CD4 Antibody (67-0041-82)
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}



CD4 Antibody (67-0041-82) in Flow
C57BL/6 mouse splenocytes were stained with CD45R (B220) Monoclonal Antibody, PE (Product # 12-0452-82) and 0.125 µg of Rat IgG2b kappa Isotype Control, Super Bright 702 (Product # 67-4031-82) (left) or 0.125 µg of CD4 Monoclonal Antibody, Super Bright 702 (right). Total viable cells were used for analysis.

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Immunohistochemistry (5)

Cell reports	Year 2022
Btla signaling in conventional and regulatory lymphocytes coordinately tempers humoral immunity in the intestinal mucosa.	
"Published figure using CD4 monoclonal antibody (Product # 67-0041-82) in Immunohistochemistry"	
Authors: Stienne C,Virgen-Slane R,Elmén L,Veny M,Huang S,Nguyen J,Chappell E,Balmer MO,Shui JW,Hurchla MA, Kronenberg M,Peterson SN,Murphy KM,Ware CF,Šedý JR	
Cancers	Year 2021
Targeting Ovarian Carcinoma with TSP-1:CD47 Antagonist TAX2 Activates Anti-Tumor Immunity.	
"Published figure using CD4 monoclonal antibody (Product # 67-0041-82) in Flow Cytometry"	
Authors: Jeanne A,Sarazin T,Charlé M,Moali C,Fichel C,Boulagnon-Rombi C,Callewaert M,Andry MC,Diesis E,Delolme F,Rioul D,Dedieu S	

View more IHC references on thermofisher.com

Immunohistochemistry (Frozen) (1)

International journal of molecular sciences	Year 2021
Positive Effects of Oral Antibiotic Administration in Murine Chronic Graft-Versus-Host Disease.	
"Published figure using CD4 monoclonal antibody (Product # 67-0041-82) in Immunohistochemistry"	
Authors: Sato S,Shimizu E,He J,Ogawa M,Asai K,Yazu H,Rusch R,Yamane M,Yang F,Fukuda S,Kawakami Y,Tsubota K,Ogawa Y	

Immunocytochemistry (2)

Nature nanotechnology	Year 2021
Cell-mimicking nanodecoys neutralize SARS-CoV-2 and mitigate lung injury in a non-human primate model of COVID-19.	
"Published figure using CD4 monoclonal antibody (Product # 67-0041-82) in Immunocytochemistry"	
Authors: Li Z,Wang Z,Dinh PC,Zhu D,Popowski KD,Lutz H,Hu S,Lewis MG,Cook A,Andersen H,Greenhouse J,Pessaint L,Lobo LJ,Cheng K	

More applications with references on thermofisher.com

Flow (72)

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