

CD4 Monoclonal Antibody (GK1.5), Super Bright™ 780, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Mouse
Host/Isotype	Rat / IgG2b, kappa
Recommended Isotype Control	Rat IgG2b kappa Isotype Control (eB149/10H5), Super Bright™ 780, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	GK1.5
Conjugate	Super Bright™ 780
Excitation/Emission Max	413/780 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_2722965

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	74 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 may 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 780 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 780 nm. We recommend using a 780/60 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.

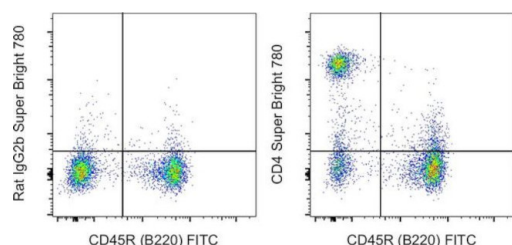
In some experiments, we have observed that compensation values for Super Bright 780-conjugated antibodies are higher in the violet 450/50 channel when using UltraComp eBeads microspheres (Product # 01-2222-42) as compared to single-color stained cells. In such circumstances, we would recommend setting compensation with cells. We have also observed this in some experiments using AbC Total Antibody Compensation beads (Product # A10497).

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100 μ L of cell sample + 100 μ L 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: 780 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™ 780, eBioscience™



CD4 Antibody (78-0041-82) in Flow

BALB/c mouse splenocytes were stained with CD45R (B220) Monoclonal Antibody, FITC (Product # 11-0452-82) and 0.125 μ g of Rat IgG2b kappa Isotype Control, Super Bright 780 (Product # 78-4031-82) (left) or 0.125 μ g of CD4 Monoclonal Antibody, Super Bright 780 (right). Cells in the lymphocyte gate were used for analysis.

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

82 References

Immunohistochemistry (5)

Cell reports

Btla signaling in conventional and regulatory lymphocytes coordinately tempers humoral immunity in the intestinal mucosa.

"Published figure using CD4 monoclonal antibody (Product # 78-0041-82) in Immunohistochemistry"

Authors: Stienne C, Virgen-Slane R, Elmén L, Veny M, Huang S, Nguyen J, Chappell E, Balmert MO, Shui JW, Hurchla MA, Kronenberg M, Peterson SN, Murphy KM, Ware CF, Šedý JR

Year
2022

Cancers

Targeting Ovarian Carcinoma with TSP-1:CD47 Antagonist TAX2 Activates Anti-Tumor Immunity.

"Published figure using CD4 monoclonal antibody (Product # 78-0041-82) 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, Rioult D, Dedieu S

Year
2021

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

Immunohistochemistry (Frozen) (1)

International journal of molecular sciences

Positive Effects of Oral Antibiotic Administration in Murine Chronic Graft-Versus-Host Disease.

"Published figure using CD4 monoclonal antibody (Product # 78-0041-82) 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

Year
2021

Immunocytochemistry (2)

Nature nanotechnology

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 # 78-0041-82) 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

Year
2021

More applications with references on thermofisher.com

Flow (74)

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