

CD45 Monoclonal Antibody (2D1), Super Bright™ 780, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Super Bright™ 780, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	2D1
Conjugate	Super Bright™ 780
Excitation/Emission Max	413/780 nm
Form	Liquid
Concentration	5 µL/Test
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_2762592

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.5 µg)/test	8 Publications

Product Specific Information

Description: The 2D1 monoclonal antibody reacts with all isoforms of human CD45, also known as Leukocyte Common Antigen (LCA). CD45 is expressed by all hematopoietic cells excluding circulating erythrocytes and platelets. The cytoplasmic portion of CD45 has tyrosine phosphatase enzymatic activity and plays an important role in activation of lymphocytes.

Applications Reported: This 2D1 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This 2D1 antibody has been pre-diluted and tested by flow cytometric analysis of normal human peripheral blood cells. This may be used at 5 µL (0.5 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.

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.

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).

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.

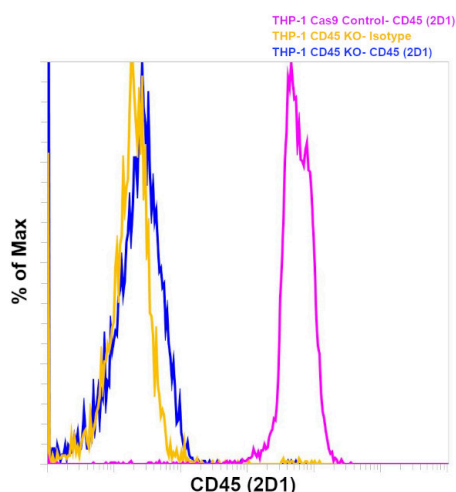
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222-49) (100 μ L of cell sample + 100 μ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333-57) 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

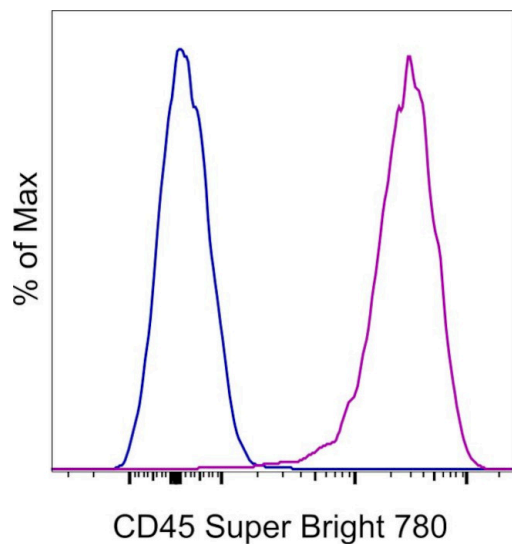
Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

Product Images For CD45 Monoclonal Antibody (2D1), Super Bright™ 780, eBioscience™



CD45 Antibody (78-9459-42)

Antibody clone (2D1) specificity was demonstrated by CRISPR-Cas9 mediated knockout of target protein. Loss of signal was observed for target protein in 2D1 KO cells (blue histogram) compared to the control Cas9 cells (pink histogram) using CD45 antibody (2D1). Yellow histogram represents staining with the isotype control. {KO}



CD45 Antibody (78-9459-42) in Flow

Normal human peripheral blood cells were stained with Mouse IgG1 kappa Isotype Control, Super Bright 780 (Product # 78-4714-82) (blue histogram) or CD45 Monoclonal Antibody, Super Bright 780 (purple histogram). Cells in the lymphocyte gate were used for analysis.

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Flow Cytometry (8)

International journal of medical sciences

LIM Mineralization Protein-1 Enhances the Committed Differentiation of Dental Pulp Stem Cells through the ERK1/2 and p38 MAPK Pathways and BMP Signaling.

Year
2022

"Published figure using CD45 monoclonal antibody (Product # 78-9459-42) in Flow Cytometry"

Authors: Mu R, Chen B, Bi B, Yu H, Liu J, Li J, He M, Rong L, Liu B, Liu K, Zhu L, Shi X, Shuai Y, Jin L

Frontiers in immunology

Cryopreserved PM21-Particle-Expanded Natural Killer Cells Maintain Cytotoxicity and Effector Functions *In Vitro* and *In Vivo*.

Year
2022

"Published figure using CD45 monoclonal antibody (Product # 78-9459-42) in Flow Cytometry"

Authors: Oyer JL, Croom-Perez TJ, Dieffenthaler TA, Robles-Carillo LD, Gitto SB, Altomare DA, Copik AJ

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