

CD45 Monoclonal Antibody (2D1), Super Bright™ 645, 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™ 645, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	2D1
Conjugate	Super Bright™ 645
Excitation/Emission Max	414/645 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_2662470

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5µL (0.5 µg)/test	11 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-titrated and tested by flow cytometric analysis of normal human peripheral blood cells. This can 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 645 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 645 nm. We recommend using a 660/20 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. Protect this vial and stained samples from light.

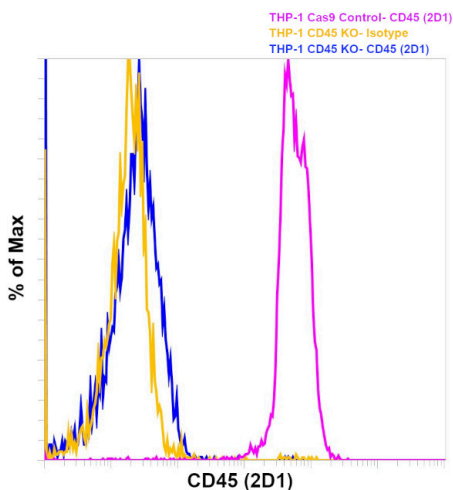
Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100 µL of cell sample + 100 µL of IC Fixation

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: 645 nm; Laser: Violet Laser

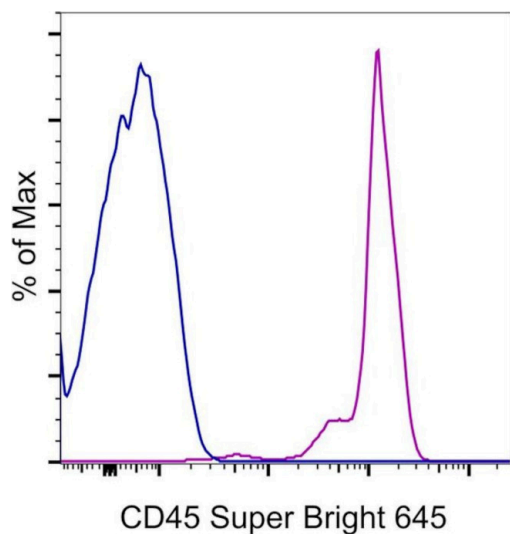
Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

Product Images For CD45 Monoclonal Antibody (2D1), Super Bright™ 645, eBioscience™



CD45 Antibody (64-9459-42)

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 (64-9459-42) in Flow

Staining of normal human peripheral blood cells with Mouse IgG1 K Isotype Control Super Bright 645 (Product # 64-4714-82) (blue histogram) or Anti-Human CD45 Super Bright 645 (purple histogram). Cells in the lymphocyte gate were used for analysis.

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Flow Cytometry (11)

Odontology

Osteogenic potential of apical papilla stem cells mediated by platelet-rich fibrin and low-level laser.

"Published figure using CD45 monoclonal antibody (Product # 64-9459-42) in Flow Cytometry"

Authors: Ramírez DG, Inostroza C, Rouabhia M, Rodriguez CA, Gómez LA, Losada M, Muñoz AL

Year
2024

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.

"Published figure using CD45 monoclonal antibody (Product # 64-9459-42) 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

Year
2022

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