

Primary Antibodies (/us/en/home/life-science/antibodies/primary-antibodies.html) ›
CD45 Antibodies (/antibody/primary/target/cd45)

Invitrogen

CD45 Monoclonal Antibody (2D1), Alexa Fluor™ 700, eBioscience™

Advanced Verification (/ca/en/home/life-science/antibodies/invitrogen-antibody-validation.html)

This Antibody was verified by Knockout to ensure that the antibody binds to the antigen stated.

16 Published Figures

21 References

[View all \(394\) CD45 antibodies \(/antibody/primary/target/cd45\)](/antibody/primary/target/cd45)

[Datasheet \(/order/genome-database/dataSheetPdf?](/order/genome-database/dataSheetPdf?producttype=antibody&productsubtype=antibody_primary&productId=56-9459-42&version=Local)

[producttype=antibody&productsubtype=antibody_primary&productId=56-9459-42&version=Local\)](/order/genome-database/dataSheetPdf?producttype=antibody&productsubtype=antibody_primary&productId=56-9459-42&version=Local)

Catalog # **56-9459-42**

100 Tests

CAD **393.00**

[Check your price & availability](#)

Join **Aspire™** for free antibodies (/us/en/home/life-science/antibodies/aspire.html?cid=bid_asp_sbu_r02_co_cp1438_pjt772)

Quantity

1

Request bulk or custom format (/content/lifetech/global/en/home/global-eBio.html?productType=Antibody&primarySiteId=US&productId=56-9459-42&productDescription=CD45 Monoclonal Antibody (2D1), Alexa Fluor™; 700, eBioscience™)

productType=Antibody&primarySiteId=US&productId=56-9459-42&productDescription=CD45 Monoclonal Antibody (2D1), Alexa Fluor™; 700, eBioscience™)

Protocols
(<https://www.thermofisher.com/global/life-science/antibodies/antibodies-learning-center/antibody-protocols.html?productId=56-9459-42>)
 Save to list

Performance Guarantee
(/us/en/home/life-science/antibodies/antibody-performance-guarantee.html)

Antibody Testing Data (1)

Published Figures (16)

Advanced Verification (1)

Application

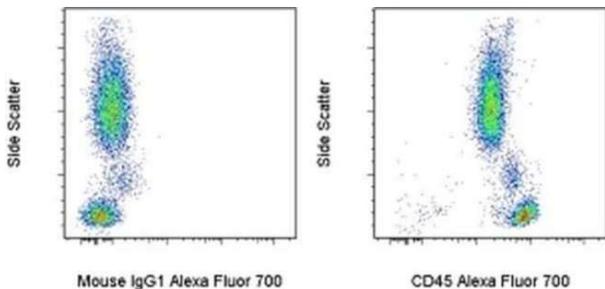


FIGURE: 1 / 18

CD45 Antibody (56-9459-42) in Flow

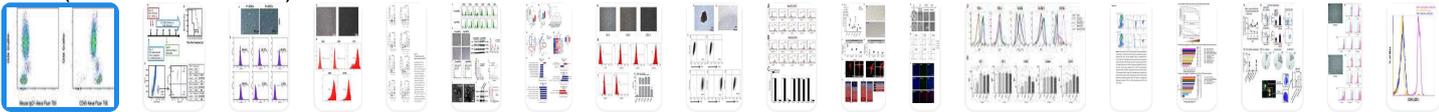
Staining of normal human peripheral blood cells Mouse IgG1 K Isotype Control Alexa Fluor® 700 (Product # 56-4714-80 (/order/genome-database/details/antibody/56-4714-80)) (left) or Anti-Human CD45 Alexa



Fluor® 700 (right). Total viable cells were used for analysis. View more



(/ca/en/home.html)



Product Details

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.25 µg)/test	View 21 publications
Product Specifications		

Species Reactivity	Human	
Product Name	Human	 
(/ca/en/home.html)		
Host/Isotype	Mouse / IgG1, kappa	
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Alexa Fluor™ 700, eBioscience™ (//www.thermofisher.com/antibody/product/56-4714-80)	
Class	Monoclonal	
Type	Antibody	
Clone	2D1	
Conjugate	Alexa Fluor™ 700	View additional formats ▾
Excitation/Emission Max	696/719 nm View spectra (/order/fluorescence-spectraviewer?SID=srch-svtool&UID=21036p72)	
Form	Liquid	
Concentration	5 µL/Test	
Purification	Affinity chromatography	
Storage buffer	PBS, pH 7.2, with 0.2% BSA	
Contains	0.09% sodium azide	
Storage conditions	4° C, store in dark, DO NOT FREEZE!	
Shipping conditions	Ambient (domestic); Wet ice (international)	
RRID 	AB_2574511	

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.

[Get free panel design help](#)

Applications Reported: This 2D1 antibody has been used in flow cytometric analysis and is available in flow cytometric analysis.

ThermoFisher
SCIENTIFIC

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 μ L (0.25 μ g) per test. A test is defined as the amount (μ g) of antibody that will stain a cell sample in a final volume of 100 μ L. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test.

Alexa Fluor® 700 emits at 723 nm and can be excited with the red laser (633 nm). Most instruments will require a 685 LP mirror and 710/20 filter. Please make sure that your instrument is capable of detecting this fluorochrome.

Excitation: 633-647 nm; Emission: 723 nm;
Laser: Red Laser.

Filtration: 0.2 μ m post-manufacturing filtered.

Target Information

CD45 (LCA, leukocyte common antigen) is a receptor-type protein tyrosine phosphatase (PTP) ubiquitously expressed in all nucleated hematopoietic cells, comprising approximately 10% of all surface proteins in lymphocytes. CD45 is absent on non-hematopoietic cell lines, normal and malignant, non-hematopoietic tissues. CD45 glycoprotein is crucial in lymphocyte development and antigen signaling, serving as an important regulator of Src-family kinases. CD45 protein exists as multiple isoforms as a result of alternative splicing, differ in their extracellular domains but share identical transmembrane and cytoplasmic domains. CD45RA is an isoform of the CD45 complex and has restricted expression between different subtypes of lymphoid cells. CD45 isoforms differ in their ability to translocate into the glycosphingolipid-enriched membrane domains and their expression depends on cell type and physiological state of the cell. CD45 has been shown to be an essential regulator of T- and B-cell antigen receptor signaling and suppresses JAK kinases to regulate cytokine receptor signaling. CD45 is also important in promoting cell survival by modulating integrin-mediated signal transduction pathway, DNA

(<https://www.thermofisher.com/us/en/home/life-science/cell-analysis/flow-cytometry/antibodies-for-flow-cytometry/flow-cytometry-panel-builder.html>)



How to use the Panel Builder

Watch the video to learn how to use the Invitrogen Flow Cytometry Panel Builder to build your next flow cytometry panel in 5 easy steps.

fragmentation during apoptosis and inhibition
or various immunological
fur

ThermoFisher
SCIENTIFIC



(/ca/en/home.html)
For Research Use Only. Not for use in
diagnostic procedures. Not for resale without
express authorization.

Related Products for

Flow Cytometry

Secondary Antibodies

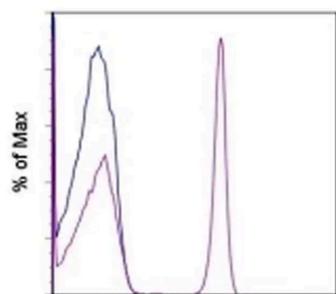
Additional Formats

Isotype Controls

Buffers FC

Viability Dyes FC

Co



CD4 Purified/Anti-Mouse IgG1 FITC

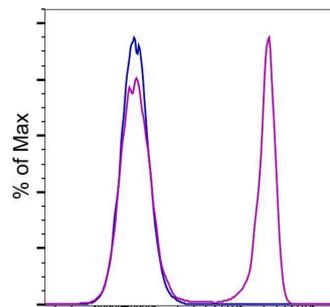
Catalog # 11-4015-80

Invitrogen
Rat anti-Mouse IgG1 Secondary
Antibody, FITC, eBioscience™

(/antibody/product/11-4015-80)

CAD 98.50 ⓘ | 100 µg

Add To Cart



Anti-mIgG1 Super Bright 600

Catalog # 63-4015-

Invitrogen
Rat anti-Mouse IgG1 Secondary
Antibody, Super Bright™ 600,
eBioscience™

(/antibody/product/63-4015-82)

CAD 558.00 ⓘ | 100 µg

Add To Cart



(/ca/en/home.html)

Protein Aliases: CD45; CD45 antigen; L-CA; Leukocyte common antigen; protein tyrosine phosphatase, receptor type, C; protein tyrosine phosphatase, receptor type, c polypeptide; Receptor-type tyrosine-protein

Gene Aliases: B220; CD45; CD45R; GP180; L-CA; LCA; LY5; PTPRC; T200

UniProt ID: (Human) P08575
(<http://www.uniprot.org/uniprot/P08575>)

Entrez Gene ID: (Human) 5788
(<http://www.ncbi.nlm.nih.gov/gene?term=5788>)

Function(s) Process(es) 

Performance Guarantee

If an Invitrogen™ antibody doesn't perform as described on our website or datasheet, we'll replace the product at no cost to you, or provide you with a credit for a future purchase.*



We're here to help

Get expert recommendations for common problems or connect directly with an on staff expert for technical assistance related to applications, equipment and general product use.

Contact tech support