CD45 Monoclonal Antibody (CD45-2B11), eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Human
Published Species	Human
Host/Isotype	Mouse / IgG1, kappa
Class	Monoclonal
Type	Antibody
Clone	CD45-2B11
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_11063696

Applications	Tested Dilution	Publications
Western Blot (WB)	5 µg/mL	-
Immunohistochemistry (IHC)	-	4 Publications
Immunohistochemistry (Paraffin) (IHC (P))	5-10 µg/mL	1 Publication
Immunocytochemistry (ICC/IF)	Assay-Dependent	-
Flow Cytometry (Flow)	0.25 µg/test	2 Publications

Product Specific Information

Description: The CD45-2B11 monoclonal antibody reacts with 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 lymphocyte proliferation and differentiation. The 2B11 antibody is useful for recognition of normal and neoplastic lymphoid cells.

Applications Reported: This CD45-2B11 antibody has been reported for use in flow cytometric analysis, immunoblotting, immunohistochemical staining of formalin-fixed paraffin embedded tissue sections, and immunocytochemistry.

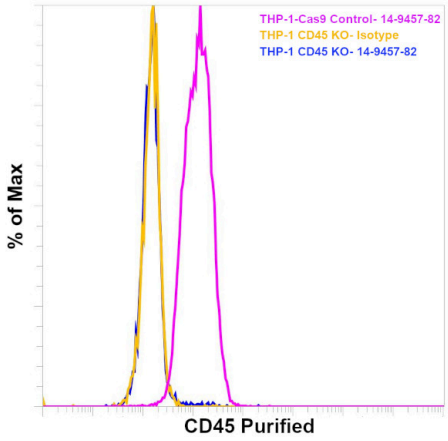
Applications Tested: This CD45-2B11 antibody has been tested by immunohistochemisty on formalin-fixed paraffin embedded tissue using high pH antigen retrieval. This can be used at less than or equal to 10 µg/mL. This CD45-2B11 antibody has also been tested by western blot at 5 µg/mL and by flow cytometric analysis on human peripheral blood cells at 0.25 µg/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 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Purity: Greater than 90%, as determined by SDS-PAGE.

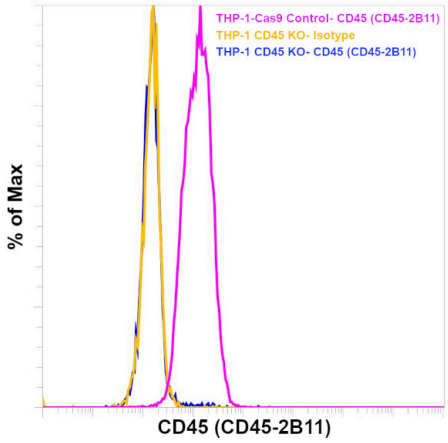
Aggregation: Less than 10%, as determined by HPLC.

Filtration: 0.2 µm post-manufacturing filtered.

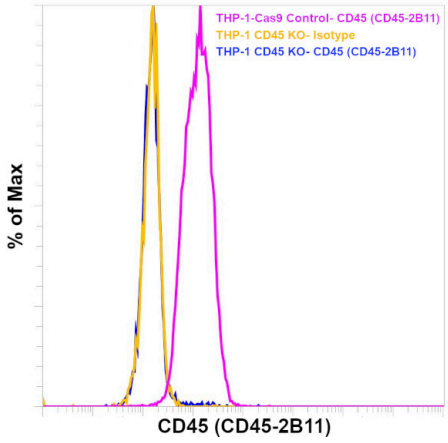
Product Images For CD45 Monoclonal Antibody (CD45-2B11), eBioscience™



CD45 Antibody (14-9457-82) in Flow
Knockout of CD45 was achieved by CRISPR-Cas9 genome editing using LentiArray™ Lentiviral sgRNA (Product # A32042, Assay ID CRISPR664203_LV) and LentiArray Cas9 Lentivirus (Product # A32064). Flow cytometry analysis of CD45 was performed by staining THP-1 CD45 Knock out cells with0.25 µg Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), eBioscience™ (Product # 14-4714-82, yellow histogram) or 0.25 µg CD45 Monoclonal Antibody (CD45-2B11), eBioscience™ (Product # 14-9457-82, blue histogram) followed by Goat anti-Mouse IgG (H+L), Superclonal™ Recombinant Secondary Antibody, Alexa Fluor™ Plus 488 (Product # A55058, 1:1000 dilution). THP-1 Cas9 control cells was also stained with0.25 µg CD45 Monoclonal Antibody (CD45-2B11), eBioscience™ (Product # 14-9457-82, pink histogram) followed by the secondary antibody. Lossof signal was observed in the CD45 KOcells stained with CD45 antibody clone CD45-2B11 but not in the control Cas9cells. Viable cells were used for analysis, as determined by Fixable Viability Dye eFluor™ 780 (Product # 65-0865-18).



CD45 Antibody (14-9457-82)
Antibody clone (CD45-2B11) specificity was demonstrated by CRISPR-Cas9 mediated knockout of target protein. Lossof signal was observed for target protein in CD45-2B11 KOcells (blue histogram) compared to the control Cas9cells (pink histogram) using CD45 antibody (CD45-2B11). Yellow histogram represents staining with the isotype control. {KO}



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7 References

Immunohistochemistry (4)

The European respiratory journal

Macrophage-derived IL-6 trans-signalling as a novel target in the pathogenesis of bronchopulmonary dysplasia.

"Published figure using CD45 monoclonal antibody (Product # 14-9457-82) in Immunohistochemistry"

Authors: Hirani D,Alvira CM,Danopoulos S,Milla C,Donato M,Tian L,Mohr J,Dinger K,Vohlen C,Selle J,V Koningsbruggen-Rietschel S,Barbarino V,Pallasch C,Rose-John S,Odenthal M,Pryhuber GS,Mansouri S,Savai R, Seeger W,Khatri P,Al Alam D,Dötsch J,Alejandre Alcazar MA

Year
2022

Species
Human

Scientific reports

Ex vivo culture of intact human patient derived pancreatic tumour tissue.

"Published figure using CD45 monoclonal antibody (Product # 14-9457-82) in Immunohistochemistry"

Authors: Kokkinos J,Sharbeen G,Haghighi KS,Ignacio RMC,Kopecky C,Gonzales-Aloy E,Youkhana J,Timpson P, Pereira BA,Ritchie S,Pandzic E,Boyer C,Davis TP,Butler LM,Goldstein D,McCarroll JA,Phillips PA

Year
2021

Species
Human

Dilution
1:100

View more IHC references on thermofisher.com

Immunohistochemistry (Paraffin) (1)

JCI insight

Heterogeneous fibroblasts underlie age-dependent tertiary lymphoid tissues in the kidney.

"Published figure using CD45 monoclonal antibody (Product # 14-9457-82) in Immunofluorescence"

Authors: Sato Y,Mii A,Hamazaki Y,Fujita H,Nakata H,Masuda K,Nishiyama S,Shibuya S,Haga H,Ogawa O,Shimizu A, Narumiya S,Kaisho T,Arita M,Yanagisawa M,Miyasaka M,Sharma K,Minato N,Kawamoto H,Yanagita M

Year
2016

Species
Human

Flow Cytometry (2)

Stem cell research & therapy

Exosomes derived from stem cells of human deciduous exfoliated teeth inhibit angiogenesis in vivo and in vitro via the transfer of miR-100-5p and miR-1246.

"Published figure using CD45 monoclonal antibody (Product # 14-9457-82) in Flow Cytometry"

Authors: Liu P,Zhang Q,Mi J,Wang S,Xu Q,Zhuang D,Chen W,Liu C,Zhang L,Guo J,Wu X

Year
2022

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