

# CD45 Monoclonal Antibody (HI30), APC, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human
Published Species	Human, Mouse
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), APC, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	HI30
Conjugate	APC
Excitation/Emission Max	651/660 nm
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!
RRID	AB_10667894

Applications	Tested Dilution	Publications
Immunocytochemistry (ICC/IF)	-	1 Publication
Flow Cytometry (Flow)	5 µL (0.06 µg)/test	55 Publications

## Product Specific Information

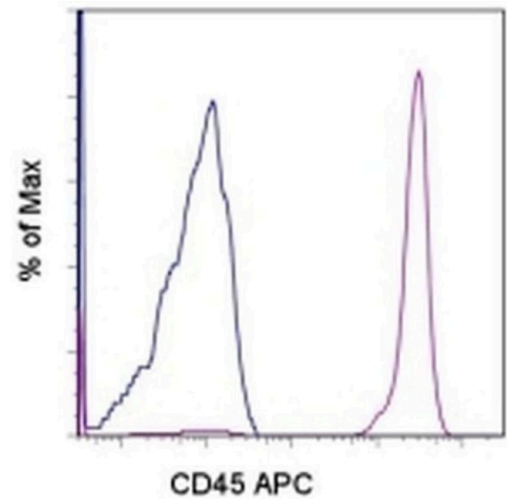
**Description:** The HI30 monoclonal antibody reacts with all isoforms of human CD45, also known as Leukocyte Common Antigen (LCA). CD45 is expressed by all hematopoietic cells excluding circulating erythrocytes and platelets. The cytoplasmic portion of CD45 has tyrosine phosphatase enzymatic activity and plays an important role in activation of lymphocytes.

**Applications Reported:** The HI30 antibody has been reported for use in flow cytometric analysis.

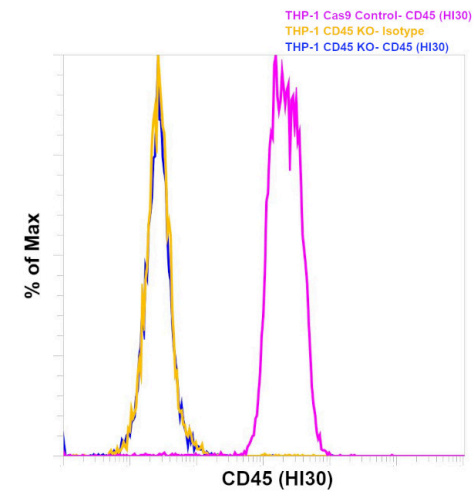
**Applications Tested:** This HI30 antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at 5 µL (0.06 µg) per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test.

**Excitation:** 633-647 nm; **Emission:** 660 nm; **Laser:** Red Laser.

**Filtration:** 0.2 µm post-manufacturing filtered.



**CD45 Antibody (17-0459-42) in Flow**  
Staining of normal human peripheral blood cells with Mouse IgG1 K Isotype Control APC (Product # 17-4714-81) (blue histogram) or Anti-Human CD45 APC (purple histogram). Cells in the lymphocyte gate were used for analysis.



**CD45 Antibody (17-0459-42)**  
Antibody clone (HI30) specificity was demonstrated by CRISPR-Cas9 mediated knockout of target protein. Loss of signal was observed for target protein in HI30 KO cells (blue histogram) compared to the control Cas9 cells (pink histogram) using CD45 antibody (HI30). The Yellow histogram represents staining with the isotype control. {KO}

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Immunocytochemistry (1)

Translational lung cancer research	Year 2020
<b>Microsieves for the detection of circulating tumor cells in leukapheresis product in non-small cell lung cancer patients.</b>	Species Human
"17-0459-42 was used in Immunocytochemistry to evaluate a protocol using two VyCAP microsieves to filter DLA product of NSCLC patients and enumerate CTC, compared with CellSearch as a gold standard."	
Authors: Tamminga M,Oomens L,Hiltermann TJN,Andree KC,Tibbe A,Broekmaat J,Schuuring E,Terstappen LWMM, Groen HJM	

Flow Cytometry (55)

International journal of molecular sciences	Year 2023
<b>STS1 and STS2 Phosphatase Inhibitor Baicalein Enhances the Expansion of Hematopoietic and Progenitor Stem Cells and Alleviates 5-Fluorouracil-Induced Myelosuppression.</b>	Species Human Mouse
"17-0459-42 was used in Flow cytometry/Cell sorting to suggest BC as one of the small molecule candidates to stimulate HSPC expansion both in vitro and in vivo when needed in either physiologic or pathologic conditions, but also supports STS1/STS2 as potential therapeutic drug targets for HSPC expansion and hematopoietic injury recovery."	
Authors: Li N,Wang Y,Wang A,Zhang J,Jia C,Yu C,Song Z,Wang S,Liu L,Yi J,Bao Y,Huang Y,Sun L	

Folia histochemica et cytobiologica	Year 2023
<b>Astragaloside IV - mediated endothelial progenitor cell exosomes promote autophagy and inhibit apoptosis in hyperglycemic damaged endothelial cells via miR-21/PTEN axis.</b>	Species Human
"17-0459-42 was used in Flow cytometry/Cell sorting to demonstrate that AS-IV-mediated EPC-exos-miR-21 enhances autophagy and depresses apoptosis in HG-damaged endothelial cells via the miR-21/PTEN axis."	
Authors: Xiong W,Huang XL,Li CY,Wang XL,Lan HW,Wang TT,Chen ZL,Yang QP,Hu AL,Xia YF,Zhu FR,Zhou ZZ	

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