CD54 (ICAM-1) Monoclonal Antibody (HA58), PE, 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), PE, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	HA58
Conjugate	PE
Excitation/Emission Max	565/576 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_10598517

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.25 µg)/test	23 Publications
Miscellaneous PubMed (Misc)	-	1 Publication

Product Specific Information

Description: The HA58 monoclonal antibody reacts with human CD54 (InterCellular Adhesion Molecule-1, ICAM-1), a 90-110 kDa transmembrane glycoprotein expressed by monocytes, lymphocytes and endothelial cells. Expression of CD54 is upregulated on activated lymphocytes. Interaction of CD54 with its ligand CD11a is important in the inflammatory response.

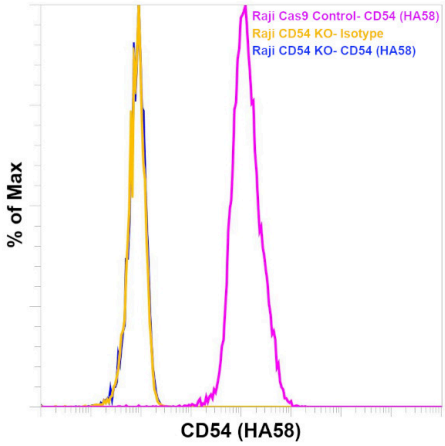
Applications Reported: The HA58 antibody has been reported for use in flow cytometric analysis.

Applications Tested: The HA58 antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at 5 µL (0.25 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 10^5 to 10^8 cells/test.

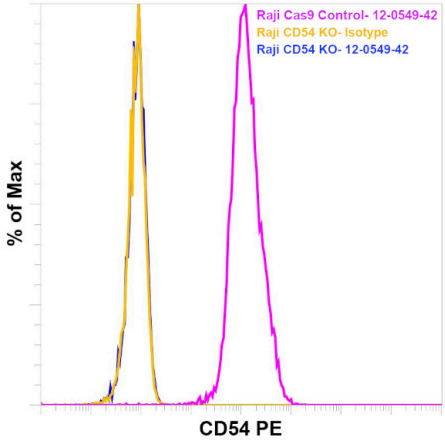
Excitation: 488-561 nm; Emission: 578 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser.

Filtration: 0.2 µm post-manufacturing filtered.

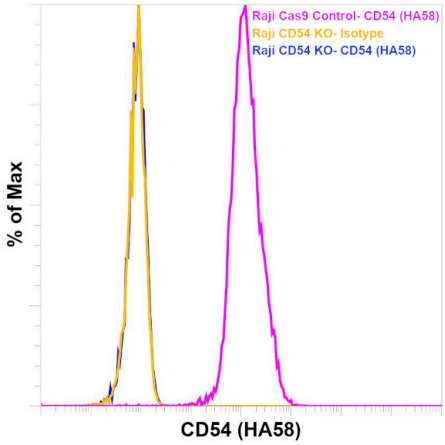
Product Images For CD54 (ICAM-1) Monoclonal Antibody (HA58), PE, eBioscience™



CD54 (ICAM-1) Antibody (12-0549-42)
Antibody clone (HA58) specificity was demonstrated by CRISPR-Cas9 mediated knockout of target protein. Lossof signal was observed for target protein in CD54 KOcells (blue histogram) compared to the control Cas9cells (pink histogram) using CD54 antibody (HA58)(Product # 12-0549-42). Yellow histogram represents staining with the isotype control. {KO}



CD54 (ICAM-1) Antibody (12-0549-42) in Flow
Knockout of ICAM-1 (CD54) was achieved by CRISPR-Cas9 genome editing using LentiArray™ Lentiviral sgRNA (Product # A32042, Assay ID CRISPR845355_LV) and LentiArray Cas9 Lentivirus (Product # A32064). Flow cytometry analysis of CD54 was performed by staining Raji CD54 Knock out cells with0.25 µg Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), PE,eBioscience™ (Product # 12-4714-82, yellow histogram) or0.25 µgCD19 Monoclonal Antibody (HIB19), PE,eBioscience™ (Product # 12-0549-42, blue histogram).Raji Cas9 control cells were also stained with0.25 µgCD19 Monoclonal Antibody (HIB19), PE,eBioscience™ (Product # 12-0549-42, pink histogram). Lossof signal was observed in the CD54 KOcells stained with CD54 antibody clone HA58 but not in the control Cas9cells. Fixable Viability DyeeFluor780 (Product # 65-0865-18) was used for staining and selecting viable cells for analysis.



CD54 (ICAM-1) Antibody (12-0549-42)
Antibody clone (HA58) specificity was demonstrated by CRISPR-Cas9 mediated knockout of target protein. Loss of signal was observed for target protein in CD54 KOcells (blue histogram) compared to the control Cas9cells (pink histogram) using CD54 antibody (HA58). Yellow histogram represents staining with the isotype control. {KO}

View more figures on thermofisher.com

24 References

Flow Cytometry (23)

PLoS genetics

Multimodal CRISPR perturbations of GWAS loci associated with coronary artery disease in vascular endothelial cells.

"Published figure using CD54 (ICAM-1) monoclonal antibody (Product # 12-0549-42) in Flow Cytometry"

Authors: Wünnemann F,Fotsing Tadjo T,Beaudoin M,Lalonde S,Lo KS,Kleinstiver BP,Lettre G

Year
2023

Immunity, inflammation and disease

Impact of latency-reversing agents on human macrophage physiology.

"Published figure using CD54 (ICAM-1) monoclonal antibody (Product # 12-0549-42) in Flow Cytometry"

Authors: Hany L,Turmel MO,Barat C,Ouellet M,Tremblay MJ

Year
2023

View more Flow references on thermofisher.com

Miscellaneous PubMed (1)

Biophysical journal

Minimal encounter time and separation determine ligand-receptor binding in cell adhesion.

"12-0549-42 was used in bead preparation to probe the hidden kinetics of ligand-receptor bond formation using single-molecule flow chamber assays and Brownian dynamics simulations."

Authors: Robert P,Nicolas A,Aranda-Espinoza S,Bongrand P,Limozin L

Year
2011

Species
Human

More applications with references on thermofisher.com

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