

CD54 (ICAM-1) Monoclonal Antibody (HA58), Super Bright™ 600, 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™ 600, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	HA58
Conjugate	Super Bright™ 600
Excitation/Emission Max	414/601 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_2784857

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.25 µg)/test	5 Publications
Neutralization (Neu)	-	1 Publication
Functional Assay (FN)	-	1 Publication
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: This HA58 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This HA58 antibody has been pre-diluted and tested by flow cytometric analysis of normal human peripheral blood cells. This may 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 10⁵ to 10⁸ cells/test.

Super Bright 600 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 600 nm. We recommend using a 610/20 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. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222-49) (100 μ L of cell sample + 100 μ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333-57) 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.

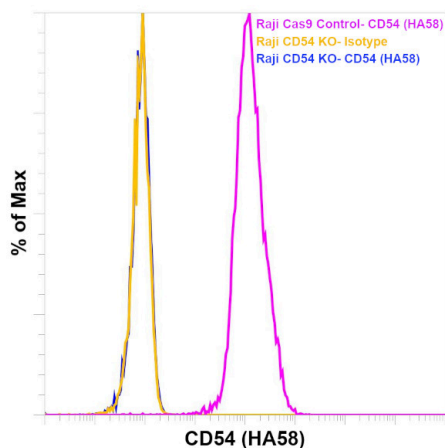
Excitation: 405 nm; Emission: 600 nm; Laser: Violet Laser

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

Product Images For CD54 (ICAM-1) Monoclonal Antibody (HA58), Super Bright™ 600, eBioscience™

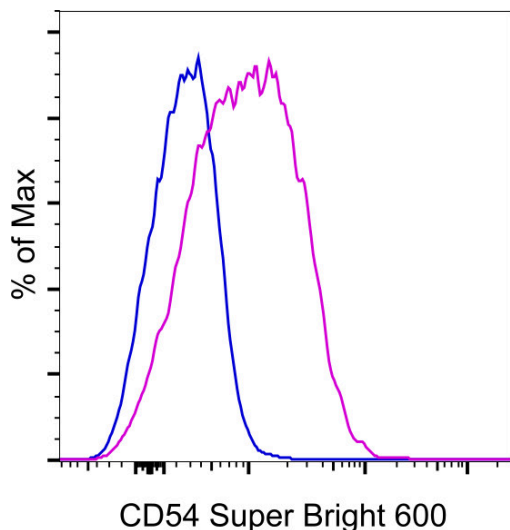
CD54 (ICAM-1) Antibody (63-0549-42)

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



CD54 (ICAM-1) Antibody (63-0549-42) in Flow

Normal human peripheral blood cells were stained with Mouse IgG1 kappa Isotype Control, Super Bright 600 (Product # 63-4714-82) (blue histogram) or CD54 Monoclonal Antibody, Super Bright 600 (purple histogram). Cells in the lymphocyte gate were used for analysis.



[View more figures on thermofisher.com](https://www.thermofisher.com)

8 References

Flow Cytometry (5)

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 # 63-0549-42) in Flow Cytometry"

Authors: Wünnemann F, Fotsing Tadjó 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 # 63-0549-42) in Flow Cytometry"

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

Year
2023

[View more Flow references on thermofisher.com](#)

Neutralization (1)

PLoS pathogens

Pomalidomide restores immune recognition of primary effusion lymphoma through upregulation of ICAM-1 and B7-2.

"Published figure using CD54 (ICAM-1) monoclonal antibody (Product # 63-0549-42) in Flow Cytometry"

Authors: Shrestha P, Davis DA, Jaeger HK, Stream A, Aisabor AI, Yarchoan R

Year
2021

Functional Assay (1)

Nature communications

Preservation of microvascular barrier function requires CD31 receptor-induced metabolic reprogramming.

"Published figure using CD54 (ICAM-1) monoclonal antibody (Product # 63-0549-42) in Functional assay"

Authors: Cheung KCP, Fanti S, Mauro C, Wang G, Nair AS, Fu H, Angeletti S, Spoto S, Fogolari M, Romano F, Aksentijevic D, Liu W, Li B, Cheng L, Jiang L, Vuononvirta J, Poobalasingam TR, Smith DM, Ciccozzi M, Solito E, Marelli-Berg FM

Year
2020

More applications with references on thermofisher.com

Misc (1)

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