abcam

ab282575

Anti-ICAM1 antibody [EPR24639-3]

Anti-ICAM1 antibody [EPR24639-3] (ab282575) is a rabbit monoclonal antibody detecting ICAM1 in **Western Blot, Flow Cytometry, IP, IHC-P, ICC/IF**. Suitable for **Human, Rat**.

- KO validated for confirmed specificity
- Biophysical QC for unrivalled batch-batch consistency

Recombinant | RabMAb | KO Validated | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR24639-3
Purification technique	Affinity purification Protein A
Specificity	Rat species is recommended based on Flow Cyt result. We do not guarantee other applications for rat.
Concentration	0.545 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	1/500
Notes	-

Not recommended

Species	Rat, Mouse
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Rat

Dilution info	1/500
Notes	-

Species	Human
Dilution info	1/500
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Rat, Mouse
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/600
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Mouse
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Rat
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

IHC-Fr

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Target data

See full target information ICAM1

Function

Cell adhesion molecule that functions as a receptor ligand of the signaling receptor ITGAL:ITGB2/LFA-1 (lymphocyte-function associated (LFA) molecule 1) ensuring leukocyte cell-cell adhesion, by providing a calibrated system to namely adjust T-cell killing to the antigen stimulation strength (PubMed:3086451, PubMed:3340213, PubMed:38195629). Also functions as a ligand receptor of the signaling receptor ITGAM:ITGB2/MAC-1 ensuring adhesion between stimulated neutrophils and stimulated endothelial cells (PubMed:1980124). During leukocyte trans-endothelial migration, ICAM1 engagement promotes the assembly of endothelial apical cups through ARHGEF26/SGEF and RHOG activation (PubMed:17875742). Promotes cell aggregation in epithelial cells through interaction with MUC1 (PubMed:11173916). (Microbial infection) Acts as a receptor for major receptor group rhinovirus A-B capsid proteins. (Microbial infection) Acts as a receptor for Coxsackievirus A21 capsid proteins. (Microbial infection) Upon Kaposi's sarcoma-associated herpesvirus/HHV-8 infection, is degraded by viral E3 ubiquitin ligase MIR2, presumably to prevent lysis of infected cells by cytotoxic T-lymphocytes and NK cell.

Storage

Shipped at conditions Conditional Ambient

Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-ICAM1 antibody [EPR24639-3] (ab282575) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Flow Cyt), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human, Rat samples.

What is the molecular weight of ICAM1?
Anti-ICAM1 [EPR24639-3] (ab282575) specifically detects a band for ICAM1 (UniProt: P05362) at a molecular weight of 57kDa.

Trusted by the scientific community
Anti-ICAM1 [EPR24639-3] (ab282575) was first used in a scientific publication in 2021 and has been cited over 10 times in peer-reviewed journals.

Specificity confirmed
The specificity of Anti-ICAM1 antibody [EPR24639-3] (ab282575) has been confirmed by Immunocytochemistry testing in ICAM1 Knockout HeLa cells.

Other related products
We have a range of other formats of antibody clone [EPR24639-3] also available for your convenience: ab282575, Carrier free - ab282599, ab323244, Carrier free - ab323253

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

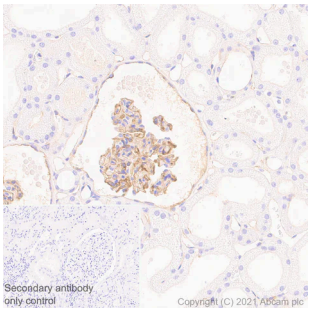
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

13 product images

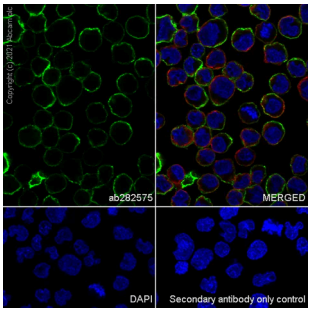


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ICAM1 antibody [EPR24639-3] (ab282575)

ICAM1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-ICAM1 antibody

Immunohistochemical analysis of paraffin-embedded human kidney tissue labelling ICAM1 with ab282575 at 1/600 (0.902 µg/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on normal human glomerulus. The section was incubated with ab282575 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

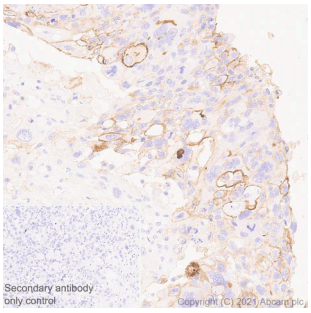


Immunocytochemistry/ Immunofluorescence - Anti-ICAM1 antibody [EPR24639-3] (ab282575)

ICAM1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-ICAM1 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized Raji cells labelling ICAM1 with ab282575 at 1/500 (1.082 µg/ml) dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing membranous staining in Raji cells.
ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.

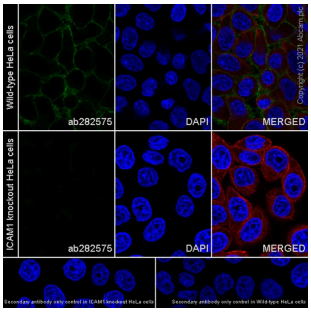


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ICAM1 antibody [EPR24639-3] (ab282575)

ICAM1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-ICAM1 antibody

Immunohistochemical analysis of paraffin-embedded human breast cancer tissue labelling ICAM1 with ab282575 at 1/600 (0.902 µg/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on human breast cancer (PMID: 30082828). The section was incubated with ab282575 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

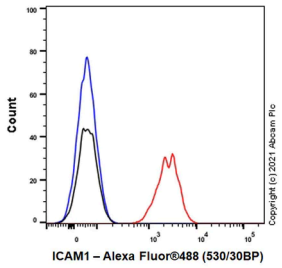


Immunocytochemistry - Anti-ICAM1 antibody [EPR24639-3] (ab282575)

ICAM1 Immunocytochemistry staining using rabbit Anti-ICAM1 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized ICAM1 KO HeLa cells labelling ICAM1 with ab282575 at 1/500 (1.082 µg/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green). Confocal image showing membranous staining in wild-type HeLa cells, and no staining in ICAM1 knockout HeLa cells is observed.
ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The nuclear counterstain was DAPI (Blue).

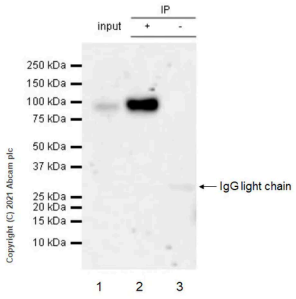
Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution.



Flow Cytometry - Anti-ICAM1 antibody [EPR24639-3] (ab282575)

ICAM1 Flow Cytometry staining using rabbit Anti-ICAM1 antibody

Flow cytometric analysis of Raji (Human Burkitt's lymphoma B lymphocyte) cells labelling ICAM1 with ab282575 at 1/500 dilution (0.1 µg)/(Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.
Gated on viable cells.



Immunoprecipitation - Anti-ICAM1 antibody [EPR24639-3] (ab282575)

ICAM1 was immunoprecipitated from 0.35 mg Raji (human burkitt's lymphoma b lymphocyte) whole cell lysate 10 µg with ab282575 at 1/30 dilution (2 µg in 0.35 mg lysates). Western blot was performed on the immunoprecipitate using ab282575 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution.
Lane 1: Raji whole cell lysate 10 µg

Lane 2: ab282575 IP in Raji whole cell lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab282575 in Raji whole cell lysate

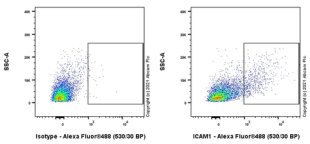
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 minutes.

All lanes:
Immunoprecipitation - Anti-ICAM1 antibody [EPR24639-3] (ab282575)

Predicted band size: 57 kDa

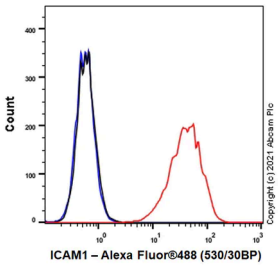
Observed band size: 90 kDa



Flow Cytometry - Anti-ICAM1 antibody [EPR24639-3] (ab282575)

ICAM1 Flow Cytometry staining using rabbit Anti-ICAM1 antibody

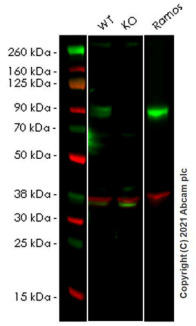
Flow cytometric analysis of rat splenocytes cells labelling ICAM1 with ab282575 at 1/500 dilution (0.1 µg)/ Right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control. A goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.
Gated on viable cells.



Flow Cytometry - Anti-ICAM1 antibody [EPR24639-3] (ab282575)

ICAM1 Flow Cytometry staining using rabbit Anti-ICAM1 antibody

Flow cytometric analysis of C6 (Rat glial tumor glial cell) cells labelling ICAM1 with ab282575 at 1/500 dilution (0.1 µg)/(red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.
Gated on viable cells.



Western blot - Anti-ICAM1 antibody [EPR24639-3] (ab282575)

ICAM1 Western blot staining using rabbit Anti-ICAM1 antibody

Blocking and diluting buffer and concentration: Intercept® (TBS) Blocking Buffer diluted with an equal volume of 0.1% TBS
Lanes 1-3: Merged signal (red and green). Green - ab282575 observed at 90kDa. Red - loading control ab8245 observed at 36 kDa.

ab282575 Anti-ICAM1 antibody [EPR24639-3] was shown to react with ICAM1 in wild-type Hela cells in Western blot. Loss of signal was observed when knockout cell line ab261742 (knockout cell lysate ab256947) was used. Wild-type and ICAM1 knockout samples were subjected to SDS-PAGE.

ab282575 and Anti-GAPDH antibody [6C5] - Loading Control (ab8245) were incubated at 4°C overnight at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1 in 10000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-ICAM1 antibody [EPR24639-3] (ab282575) at 1/1000 dilution

Lane 1:
Wild-type HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 2:
ICAM1 knockout HeLa whole cell lysate at 20 µg

Lane 2:
Western blot - Human ICAM1 knockout HeLa cell line (ab261742)

Lane 3:
Ramos (Human Burkitt's lymphoma B lymphocyte) whole cell lysate at 20 µg

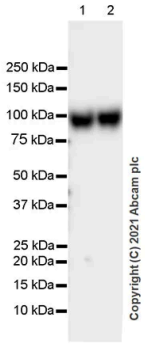
Secondary

All lanes:
Goat Anti-Rabbit IgG H&L (IRDye® 800CW) (ab216773) and Goat Anti-Mouse IgG H&L (IRDye® 680RD) (ab216776) at 1/10000 dilution

Predicted band size: 57 kDa

Observed band size: 90 kDa

Western blot - Anti-ICAM1 antibody [EPR24639-3] (ab282575)



ICAM1 Western blot staining using rabbit Anti-ICAM1 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST
Exposure time: 15 seconds

All lanes:
Western blot - Anti-ICAM1 antibody [EPR24639-3] (ab282575) at 1/1000 dilution

Lane 1:
Ramos (human Burkitt's lymphoma B lymphocyte) whole cell lysate at 20 µg

Lane 2:
Raji (human Burkitts lymphoma B lymphocyte) whole cell lysate at 20 µg

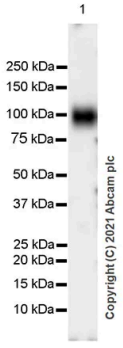
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 57 kDa

Observed band size: 90 kDa

Western blot - Anti-ICAM1 antibody [EPR24639-3] (ab282575)



ICAM1 Western blot staining of human kidney tissue lysate using rabbit Anti-ICAM1 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST
Exposure time: 26 seconds

All lanes:
Western blot - Anti-ICAM1 antibody [EPR24639-3] (ab282575) at 1/1000 dilution

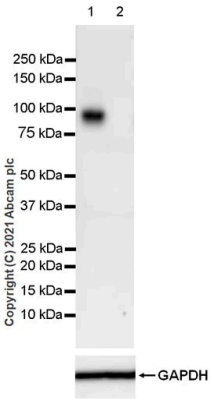
All lanes:
human kidney tissue lysate at 20 µg

Secondary

All lanes:
Western blot - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/1000 dilution

Predicted band size: 57 kDa

Observed band size: 90 kDa



Western blot - Anti-ICAM1 antibody [EPR24639-3] (ab282575)

ICAM1 Western blot staining using rabbit Anti-ICAM1 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST
ab282575 Anti-ICAM1 antibody [EPR24639-3] was shown to react with ICAM1 in wild-type Hela cells in Western blot. Loss of signal was observed when knockout cell line ab261742 (knockout cell lysate ab256947) was used. Wild-type and ICAM1 knockout samples were subjected to SDS-PAGE.

Exposure time: 15 seconds.

All lanes:
Western blot - Anti-ICAM1 antibody [EPR24639-3] (ab282575) at 1/1000 dilution

Lane 1:
Wild-type HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate at 20 µg

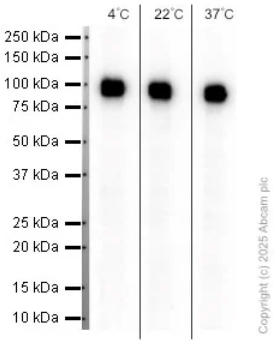
Lane 2:
ICAM1 knockout Hela whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 57 kDa

Observed band size: 90 kDa



Western blot - Anti-ICAM1 antibody [EPR24639-3] (ab282575)

ICAM1 Western blot staining of Raji whole cell lysate using rabbit Anti-ICAM1 antibody

This blot was produced using 4-20% SDS-PAGE containing 15 µg of Raji whole cell lysate per lane at 150V for 1hr before being transferred onto a 0.45 µm PVDF membrane at 75V for 1hr. The membrane was then blocked for 1hr using 5% NFDM/TBST, then incubated with ab282575 (1/2000) at room temperature for 1hr. After being washed three times in TBST, the membrane was incubated with Peroxidase conjugated goat anti-rabbit IgG (H+L) (ab97051) at 1/20,000 dilution for 1hr at room temperature. The membrane was washed three times again. Then the signal was developed using the ECL technique.

ab282575 was stored at a range of temperatures (+4°C, +22°C, +37°C) for 1 week before being tested in WB. The image shows the band intensity remains relatively constant across all storage temperatures, demonstrating that antibody activity is not affected under these conditions. This data was generated as part of a structured antibody stability study supporting Abcam’ s transition from cold⊠chain to ambient shipping.

All lanes:
Western blot - Anti-ICAM1 antibody [EPR24639-3] (ab282575) at 1/2000 dilution

All lanes:
Raji whole cell lysate at 15 µg with NDFM/TBST

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Exposure time: 60s

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.