

Product datasheet

Anti-ICAM1 antibody [EP1442Y] ab53013

Recombinant RabMAb

[56 References](#) [6 Images](#)

Overview

Product name	Anti-ICAM1 antibody [EP1442Y]
Description	Rabbit monoclonal [EP1442Y] to ICAM1
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Human ICAM1 aa 1-100 (N terminal). The exact sequence is proprietary. (Peptide available as ab218845)
Positive control	WB: Huvec, Ramos and Raji whole cell lysate; IHC: Human kidney and tonsil tissue.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	<p>pH: 7.20</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP1442Y

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab53013 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 89 kDa (predicted molecular weight: 58 kDa).
IHC-P		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target

Function

ICAM proteins are ligands for the leukocyte adhesion protein LFA-1 (integrin alpha-L/beta-2). During leukocyte trans-endothelial migration, ICAM1 engagement promotes the assembly of endothelial apical cups through ARHGEF26/SGEF and RHOG activation. In case of rhinovirus infection acts as a cellular receptor for the virus.

Sequence similarities

Belongs to the immunoglobulin superfamily. ICAM family.
Contains 5 Ig-like C2-type (immunoglobulin-like) domains.

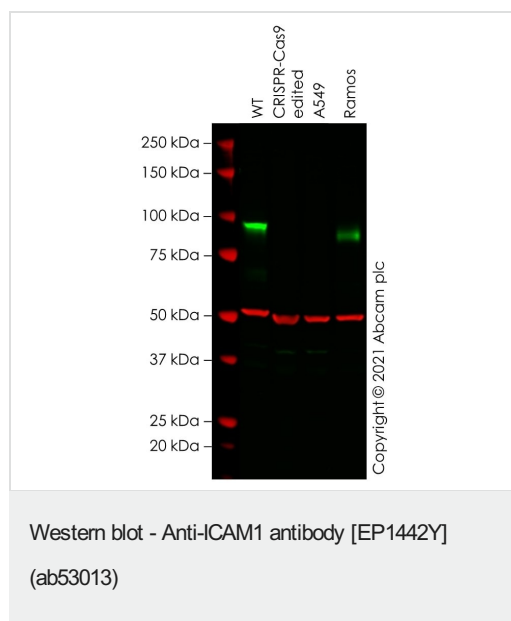
Post-translational modifications

Monoubiquitinated, which is promoted by MARCH9 and leads to endocytosis.

Cellular localization

Membrane.

Images



All lanes : Anti-ICAM1 antibody [EP1442Y] (ab53013) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate

Lane 2 : ICAM1 CRISPR-Cas9 edited HeLa cell lysate

Lane 3 : A549 cell lysate

Lane 4 : Ramos cell lysate

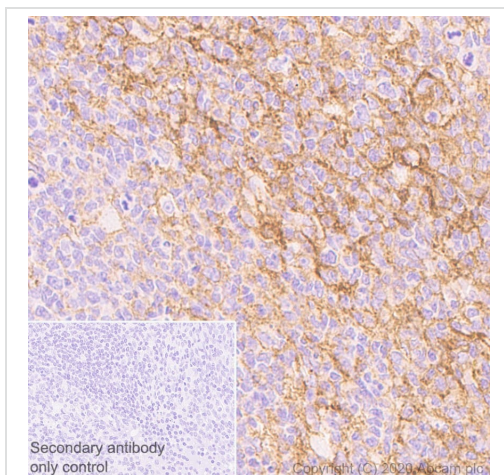
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 58 kDa

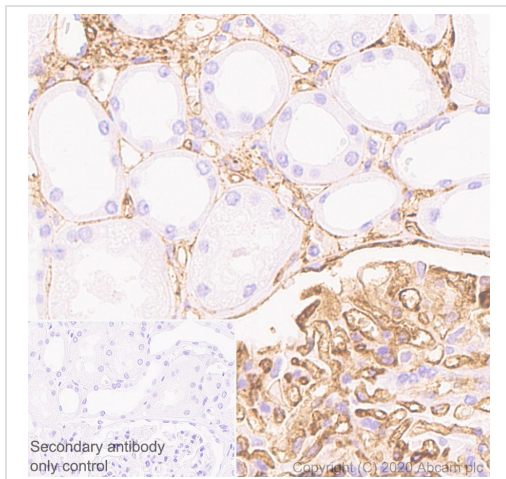
Observed band size: 90 kDa

False colour image of Western blot: Anti-ICAM1 antibody [EP1442Y] staining at 1/1000 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] ([ab7291](#)) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab53013 was shown to bind specifically to ICAM1. A band was observed at 90 kDa in wild-type HeLa cell lysates with no signal observed at this size in *Icam1* CRISPR-Cas9 edited cell line [ab261742](#) (CRISPR-Cas9 edited cell lysate [ab256947](#)). The band observed in the CRISPR-Cas9 edited lysate lane below 90 kDa (not observed by this antibody) is likely to represent a truncated form of ICAM1. This has not been investigated further and the functional properties of the gene product have not been determined. To generate this image, wild-type and *Icam1* CRISPR-Cas9 edited HeLa cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ([ab216776](#)) at 1/20000 dilution.

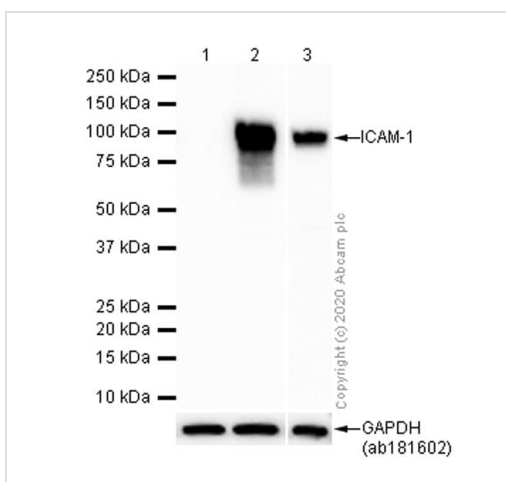


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human tonsil tissue sections labeling ICAM1 with purified ab53013 at 1/500 dilution (0.22 µg/mL). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ICAM1 antibody [EP1442Y] (ab53013)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ICAM1 antibody [EP1442Y] (ab53013)



Western blot - Anti-ICAM1 antibody [EP1442Y] (ab53013)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human kidney tissue sections labeling ICAM1 with purified ab53013 at 1/500 dilution (0.22 µg/mL). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

Lanes 1 & 3 : Anti-ICAM1 antibody [EP1442Y] (ab53013) at 1/1000 dilution

Lane 2 : Anti-ICAM1 antibody [EP1442Y] (ab53013) at 1/1000 dilution (Purified)

Lane 1 : Untreated HUVEC (Human umbilical vein endothelial cell) whole cell lysate

Lane 2 : HUVEC (Human umbilical vein endothelial cell) treated with 50ng/ml TNF-α for 24 hours whole cell lysate

Lane 3 : Raji (Human Burkitt's lymphoma B lymphocyte) whole cell lysate

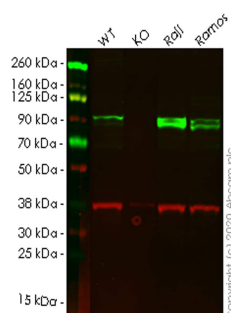
Lysates/proteins at 20 µg per lane.

Secondary

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

Predicted band size: 58 kDa

The molecular mass observed is consistent with what has been described in the literatures (PMID: 29777158, 30082828, 31244919).



Western blot - Anti-ICAM1 antibody [EP1442Y] (ab53013)

All lanes : Anti-ICAM1 antibody [EP1442Y] (ab53013) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate

Lane 2 : ICAM1 knockout HeLa cell lysate

Lane 3 : Raji cell lysate

Lane 4 : Ramos cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) at 1/10000 dilution





Predicted band size: 58 kDa

Observed band size: 90 kDa

Lanes 1-4: Merged signal (red and green). Green - ab53013 observed at 90 kDa. Red - loading control [ab8245](#) observed at 36 kDa.

ab53013 Anti-ICAM1 antibody [EP1442Y] was shown to specifically react with ICAM1 in wild-type HeLa cells. 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. ab53013 and Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) were incubated overnight at 4°C 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 20000 dilution for 1 hour at room temperature before imaging.

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-ICAM1 antibody [EP1442Y] (ab53013)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors