

Product datasheet

Anti-ICAM1 antibody [EP1442Y] ab53013

Recombinant RabMAb

[46 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>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</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	pH: 7.20 Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP1442Y
Isotype	IgG

Applications

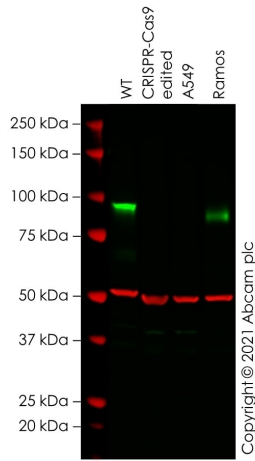
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab53013 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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



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 CRISPR-Cas9 edited HeLa cell lysate

Lane 3 : A549 cell lysate

Lane 4 : Ramos cell lysate

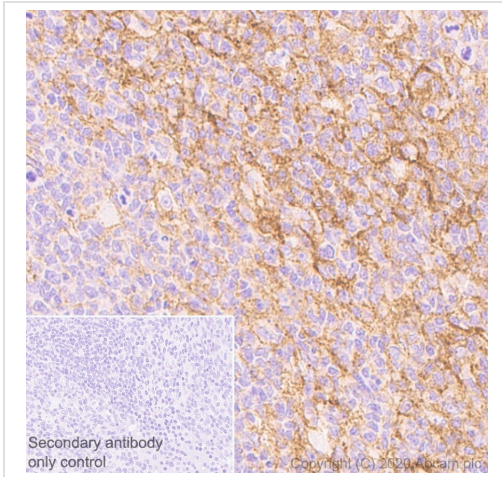
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 58 kDa

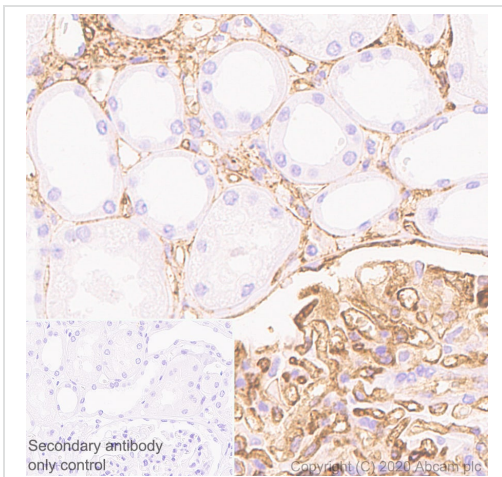
Observed band size: 90 kDa

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.



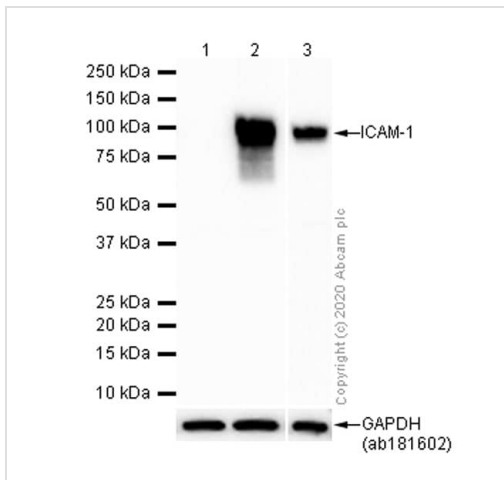
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ICAM1 antibody [EP1442Y] (ab53013)

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) 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.



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

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

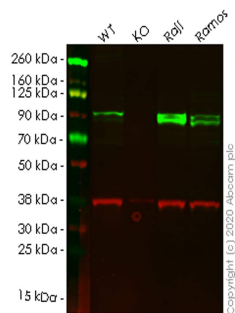
Secondary

Lanes 1 & 3 : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/20000 dilution

Lane 2 : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution (Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated)

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)

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