

## Product datasheet

### Anti-CEACAM1 antibody [EPR26490-88] ab300061



KO VALIDATED

Recombinant

RabMAb

11 Images

#### Overview

<b>Product name</b>	Anti-CEACAM1 antibody [EPR26490-88]
<b>Description</b>	Rabbit monoclonal [EPR26490-88] to CEACAM1
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt, IHC-P, WB, IP, ICC/IF <b>Unsuitable for:</b> IHC-Fr
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Does not react with:</b> Mouse, Rat
<b>Immunogen</b>	Recombinant fragment corresponding to Human CEACAM1 aa 1-450. Database link: <a href="#">P13688</a>
	 <a href="#">Run BLAST with</a>  <a href="#">Run BLAST with</a>
<b>Positive control</b>	WB: Wild-type A549, HepG2, Human kidney, Human colon, A-204, SW480, His-tagged human CEACAM-1 recombinant protein aa35-428 recombinant protein lysates. IHC-P: Human: colon, endometrium, liver and hepatic carcinoma tissues ICC/IF: A549 cells. Flow cyt.: Wild-type A549 cell. IP: A549 cell.
<b>General notes</b>	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> For more information <a href="#">see here</a> . Our RabMAb <sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a> .

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR26490-88
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab300061 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
Flow Cyt		1/500.
IHC-P		1/2000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		1/1000. Predicted molecular weight: 57 kDa.
IP		1/30.
ICC/IF		1/500.

**Application notes** Is unsuitable for IHC-Fr.

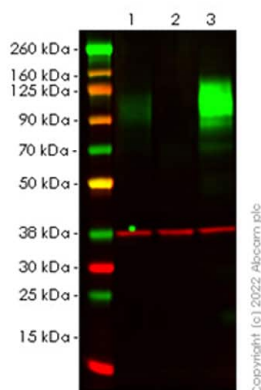
## Target

**Sequence similarities** Belongs to the immunoglobulin superfamily. CEA family.  
Contains 3 Ig-like C2-type (immunoglobulin-like) domains.  
Contains 1 Ig-like V-type (immunoglobulin-like) domain.

**Cellular localization** Secreted; Cell membrane and Cell membrane. Localizes to sites of cell-cell contact.

**Form** There are 11 isoforms produced by alternative splicing. Isoform 1 = BGP<sub>a</sub>; CEACAM1-4L; TM1-CEA; Isoform 2 = BGP<sub>g</sub>; CEACAM1-4C1; Isoform 3 = BGP<sub>h</sub>; CEACAM1-3; Isoform 4 = BGP<sub>i</sub>; CEACAM1-3C2; Isoform 5 = BGP<sub>y</sub>; CEACAM1-3AL; Isoform 6 = BGP<sub>b</sub>; CEACAM1-3L; TM2-CEA; Isoform 7 = BGP<sub>x</sub>; CEACAM1-1L; Isoform 8 = BGP<sub>c</sub>; CEACAM1-4S; TM3-CEA; Isoform 9 = BGP<sub>z</sub>; CEACAM1-3AS and Isoform 11 = BGP<sub>d</sub>; CEACAM1-3S.

## Images



Western blot - Anti-CEACAM1 antibody [EPR26490-88] (AB300061)

**All lanes :** Anti-CEACAM1 antibody [EPR26490-88] (ab300061) at 1/1000 dilution

**Lane 1 :** Wild-type A549 ([ab255450](#)) whole cell lysate

**Lane 2 :** CEACAM1 knockout A549 ([ab267047](#)) whole cell lysate

**Lane 3 :** HepG2 (human hepatocellular carcinoma epithelial cell) whole cell lysate

Lysates/proteins at 20 µg per lane.

### Secondary

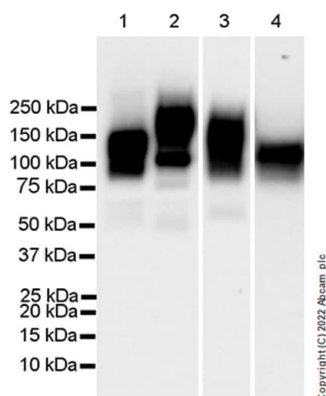
**All lanes :** Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed ([ab216776](#)) at 1/10000 dilution

**Predicted band size:** 57 kDa

**Observed band size:** 100-180 kDa

Lanes 1-3: Merged signal (red and green). Green - ab300061 observed at 100-180 kDa. Red - loading control [ab8245](#) observed at 36 kDa.

ab300061 Anti-CEACAM1 antibody [EPR26490-88] was shown to specifically react with CEACAM1 in wild-type A549 cells ([ab255450](#)). Loss of signal was observed when knockout cell line ([ab267047](#)) was used. Wild-type and CEACAM1 knockout samples were subjected to SDS-PAGE. ab300061 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.



Western blot - Anti-CEACAM1 antibody [EPR26490-88] (AB300061)

**All lanes :** Anti-CEACAM1 antibody [EPR26490-88] (ab300061) at 1/1000 dilution

**Lane 1 :** Human kidney tissue lysate

**Lane 2 :** Human colon tissue lysate

**Lane 3 :** A-204 (human muscle rhabdomyosarcoma) whole cell lysate

**Lane 4 :** SW480 (human colorectal adenocarcinoma epithelial cell) whole cell lysate

Lysates/proteins at 20 µg per lane.

### Secondary

**Lanes 1-2 :** Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG (Merck DC03L)

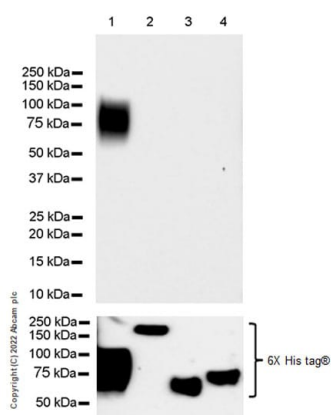
**Lanes 3-4 :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

**Predicted band size:** 57 kDa

**Observed band size:** 100-180 kDa

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

Exposure time: Lanes 1-3:10 seconds; Lane 4: 48 seconds.



Western blot - Anti-CEACAM1 antibody [EPR26490-88] (AB300061)

**All lanes :** Anti-CEACAM1 antibody [EPR26490-88] (ab300061) at 1/1000 dilution

**Lane 1 :** His-tagged human CEACAM-1 recombinant protein aa (aa35-428) 20ng

**Lane 2 :** His-tagged human CEACAM-5/CD66e recombinant protein (aa35-685) 20ng

**Lane 3 :** His-tagged human CEACAM-6/CD66c recombinant protein (aa35-320) 20ng

**Lane 4 :** His-tagged human CEACAM-8/CD66b recombinant protein(aa35-320) 20ng

### Secondary

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

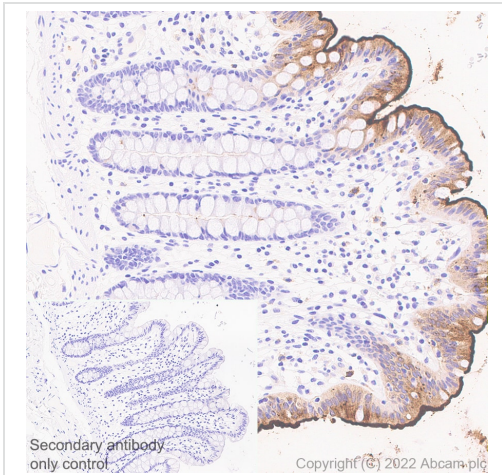
**Predicted band size:** 57 kDa

**Observed band size:** 100-180 kDa

**Exposure time:** 48 seconds

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

Exposure time: Lanes 1-3:10 seconds; Lane 4: 48 seconds.

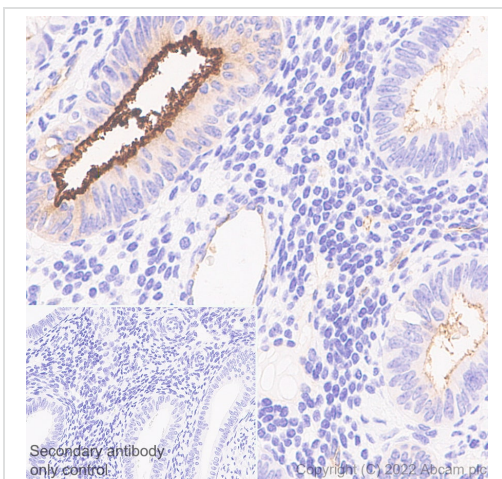


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CEACAM1 antibody [EPR26490-88] (AB300061)

Immunohistochemical analysis of paraffin-embedded human colon tissue labelling CEACAM1 with ab300061 at 1/2000 followed by a ready to use LeicaDS9800 (BOND™ Polymer Refine Detection). Positive staining on human colon (PMID: 8543780). The section was incubated with ab300061 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: PBS was used instead of primary antibody (ab300061) followed by ready to use secondary antibody LeicaDS9800 (BOND™ Polymer Refine Detection).

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



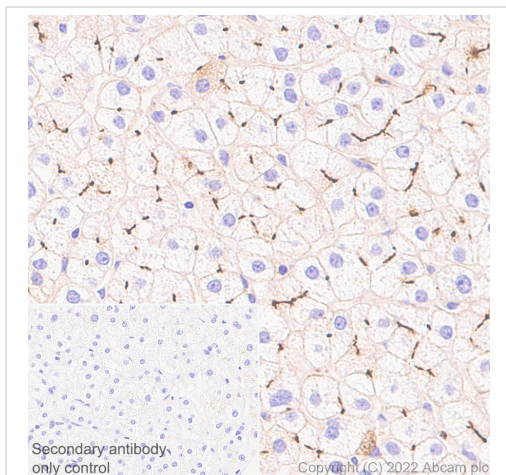
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CEACAM1 antibody [EPR26490-88] (AB300061)

Immunohistochemical analysis of paraffin-embedded human endometrium tissue labelling CEACAM1 with ab300061 at 1/2000 followed by a ready to use LeicaDS9800 (BOND™ Polymer Refine Detection). Positive staining on human endometrium (PMID: 9626043). The section was incubated with ab300061 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: PBS was used instead of primary antibody (ab300061) followed by ready to use secondary antibody LeicaDS9800 (BOND™ Polymer Refine Detection).

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



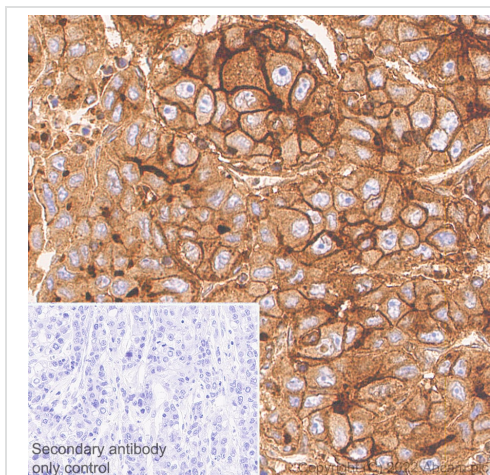


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CEACAM1 antibody [EPR26490-88] (AB300061)

Immunohistochemical analysis of paraffin-embedded human liver tissue labelling CEACAM1 with ab300061 at 1/2000 followed by a ready to use LeicaDS9800 (BOND™ Polymer Refine Detection). Positive staining on human liver (PMID: 27377843). The section was incubated with ab300061 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: PBS was used instead of primary antibody (ab300061) followed by ready to use secondary antibody LeicaDS9800 (BOND™ Polymer Refine Detection).

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

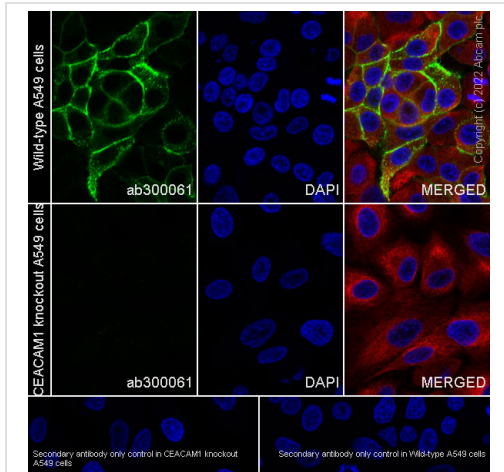


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CEACAM1 antibody [EPR26490-88] (AB300061)

Immunohistochemical analysis of paraffin-embedded human hepatic carcinoma tissue labelling CEACAM1 with ab300061 at 1/2000 followed by a ready to use LeicaDS9800 (BOND™ Polymer Refine Detection). Positive staining on human hepatic carcinoma (PMID: 27377843). The section was incubated with ab300061 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: PBS was used instead of primary antibody (ab300061) followed by ready to use secondary antibody LeicaDS9800 (BOND™ Polymer Refine Detection).

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

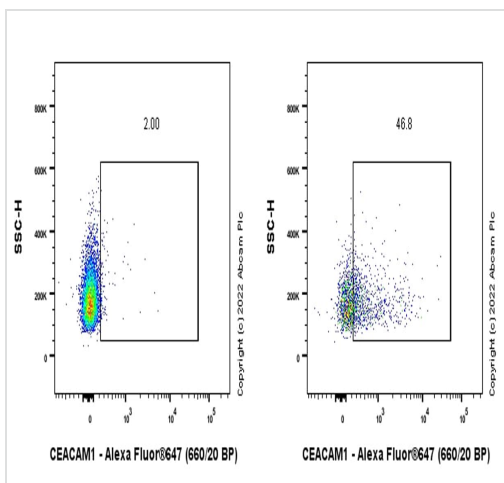


Immunocytochemistry/ Immunofluorescence - Anti-CEACAM1 antibody [EPR26490-88] (ab300061)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized CEACAM1 KO A549 (CEACAM1 knockout human lung carcinoma epithelial cell) ([ab267047](#)) cells labelling CEACAM1 with ab300061 at 1/500 dilution, followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green). Confocal image showing membrane and cytoplasmic staining in parental A549 cells, no staining in CEACAM1 KO A549 cells.

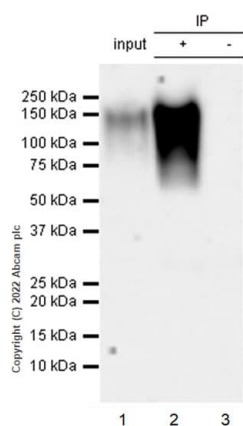
[ab195889](#) Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The Nuclear counterstain was DAPI (Blue).

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



Flow Cytometry - Anti-CEACAM1 antibody [EPR26490-88] (AB300061)

Flow cytometric analysis of Wild-type A549 (Human lung carcinoma epithelial cell, Right)/ CEACAM1 knockout A549 cells (Left) cells labelling CEACAM1 with ab300061 at 1/500 dilution/ Left and Right compared with a isotype control. Goat anti-Rabbit IgG (Alexa Fluor® 647, [ab150083](#)) at 1/2000 dilution was used as the secondary antibody. Gated on viable cells. Positive staining on A549 cells ([ab255450](#)), while no staining on CEACAM1 knockout A549 cells ([ab267047](#)).



Immunoprecipitation - Anti-CEACAM1 antibody  
[EPR26490-88] (AB300061)

CEACAM1 was immunoprecipitated from 0.35 mg A549 (human lung carcinoma epithelial cell) whole cell lysate 10 µg with ab300061 at 1/30 dilution. Western blot was performed on the immunoprecipitate using ab300061 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)([ab131366](#)) was used at 1/5000 dilution.

Lane 1: A549 (human lung carcinoma epithelial cell) whole cell lysate 10 µg (Input)

Lane 2: ab300061 IP in A549 whole cell lysate

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab300061 in A549 whole cell lysate

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

Exposure time: 32 seconds

#### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-CEACAM1 antibody [EPR26490-88]  
(AB300061)

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

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