

Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] ab133633

敲除验证 重组 RabMAb

[8 References](#) [18 图像](#)

概述

产品名称	Anti-Carcino Embryonic Antigen CEA抗体[EPCEAR7]
描述	兔单克隆抗体[EPCEAR7] to CEACAM5
宿主	Rabbit
经测试应用	适用于: WB, IHC-P, ICC/IF
种属反应性	与反应: Human
免疫原	Full length native protein (purified) corresponding to Human Carcino Embryonic Antigen CEA.
阳性对照	WB: Human colon cancer lysate, His-tagged human CEACAM5 recombinant protein (aa 35-586), BxPC-3 and MCF7 whole cell lysates unboiled. IHC-P: Human colon carcinoma tissue, human gastric carcinoma tissue, HEK-293T cells transfected with a CEACAM5 expression vector containing a his tag and HEK-293T cells transfected with a CEACAM6 expression vector containing a his tag. ICC/IF: MCF7 cells.
常规说明	<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>

性能

形式	Liquid
存放说明	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. Stable for 12 months at -20°C.
存储溶液	pH: 7.2

Preservative: 0.01% Sodium azide
Constituents: 59% PBS, 40% Glycerol, 0.05% BSA

纯度 Protein A purified
克隆 单克隆
克隆编号 EPCEAR7
同种型 IgG

应用

The Abpromise guarantee Abpromise™ 承诺保证使用 ab133633 于以下的经测试应用

“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB		1/1000 - 1/10000. Detects a band of approximately 180-200 kDa (predicted molecular weight: 76 kDa).
IHC-P		1/2000 - 1/3000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. See <u>IHC antigen retrieval protocols.</u> For unpurified use at 1/250 - 1/500. ab133633 is also cross-reactive with human CEACAM6 in IHC.
ICC/IF		1/50 - 1/500.

靶标

功能 Cell surface glycoprotein that plays a role in cell adhesion and in intracellular signaling. Receptor for E.coli Dr adhesins.

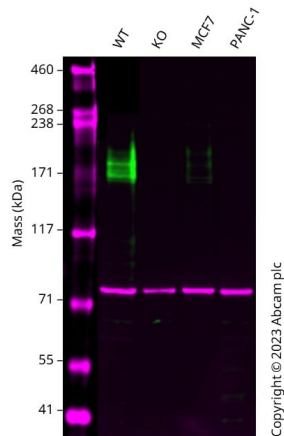
组织特异性 Found in adenocarcinomas of endodermally derived digestive system epithelium and fetal colon.

序列相似性 Belongs to the immunoglobulin superfamily. CEA family.
Contains 7 Ig-like (immunoglobulin-like) domains.

翻译后修饰 Complex immunoreactive glycoprotein with a MW of 180 kDa comprising 60% carbohydrate.

细胞定位 Cell membrane.

图片



Western blot - Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] (ab133633)

All lanes : Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] (ab133633) at 1/1000 dilution

Lane 1 : Wild-type A549 cell lysate

Lane 2 : CEACAM5 knockout A549 cell lysate

Lane 3 : MCF7 (unboiled) cell lysate

Lane 4 : PANC-1 (unboiled) cell lysate

Lysates/proteins at 20 µg per lane.

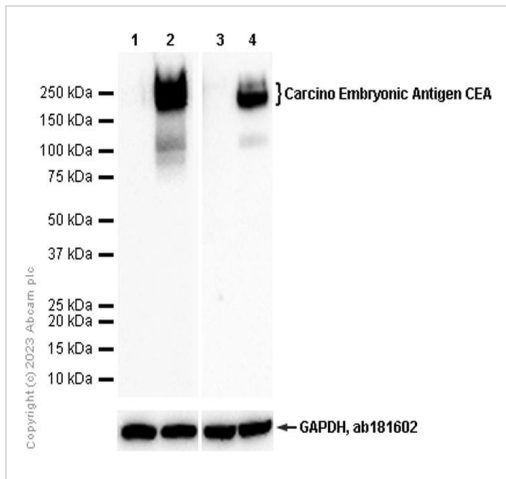
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 76 kDa

Observed band size: 160-180 kDa

Western blot: Anti-CEACAM5 antibody [EPCEAR7] (ab133633) staining at 1/1000 dilution, shown in green; Mouse anti-CANX [CANX/1543] (**ab238078**) loading control staining at 1/20000 dilution, shown in magenta. In Western blot, ab133633 was shown to bind specifically to CEACAM5. A band was observed at 160-180 kDa in wild-type A549 cell lysates with no signal observed at this size in CEACAM5 knockout cell line. To generate this image, wild-type and CEACAM5 knockout A549 unboiled 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 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.



Western blot - Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] (ab133633)

All lanes : Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] (ab133633) at 1/1000 dilution

Lane 1 : BxPC-3 (Human pancreas adenocarcinoma epithelial cell) whole cell lysate boiled

Lane 2 : BxPC-3 (Human pancreas adenocarcinoma epithelial cell) whole cell lysate unboiled

Lane 3 : MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate boiled

Lane 4 : MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate unboiled

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: 76 kDa

Observed band size: 180-200 kDa

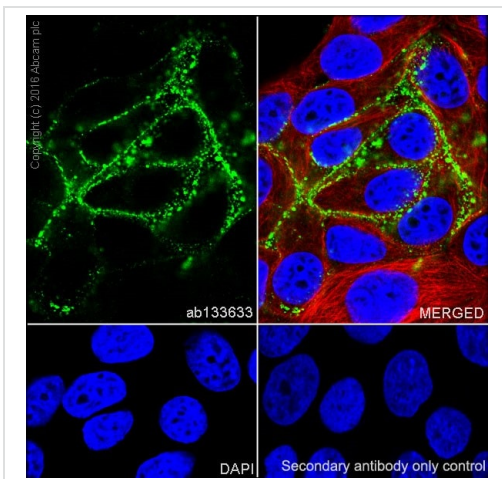
Exposure time: 3 seconds

Blocking buffer and concentration: 5% NFDm/TBST.

Diluting buffer and concentration: 5% NFDm/TBST.

[ab181602](#) was used as a loading control.

We recommend not to boil the sample after lysis to get desirable WB result.

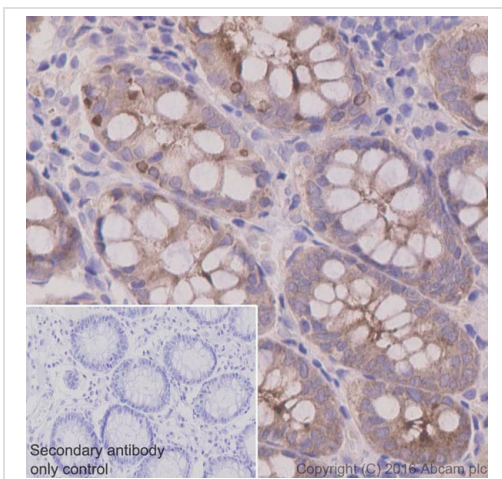


Immunocytochemistry/ Immunofluorescence - Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] (ab133633)

Confocal image showing membranous staining in MCF7 cell line.

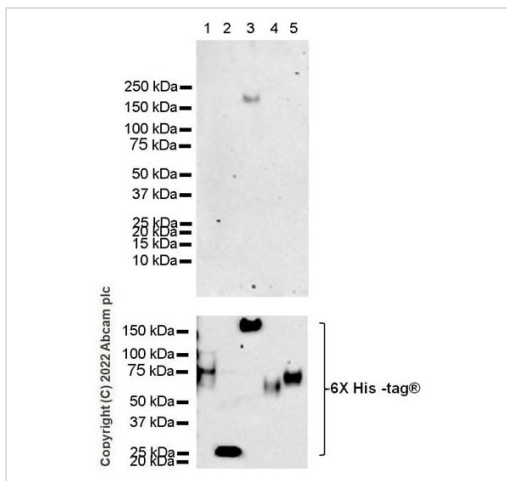
Immunocytochemistry/Immunofluorescence analysis of MCF7 (human breast adenocarcinoma cell line) cells labelling carcino embryonic antigen (CEA) with ab133633 at 1/500. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. An Alexa Fluor® 488-conjugated goat anti-rabbit IgG (**ab150077**) at 1/10000 dilution was used as the secondary antibody. The cells were counterstained with **ab195889**, a anti-alpha tubulin antibody at 1/200 dilution. DAPI was used as a nuclear counterstain.

Secondary antibody only control: Used PBS instead of primary antibody, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] (ab133633)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human colon tissue sections labeling Carcino Embryonic Antigen CEA with Purified ab133633 at 1:3000 dilution (0.6 µg/ml). Heat mediated antigen retrieval was performed using Perform heat mediated antigen retrieval using EDTA Buffer, PH9. Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.



Western blot - Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] (ab133633)

All lanes : Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] (ab133633) at 1/1000 dilution

Lane 1 : His-tagged human CEACAM1 recombinant protein (aa 35-428)

Lane 2 : His-tagged human CEACAM3 recombinant protein (aa 35-252)

Lane 3 : His-tagged human CEACAM5 recombinant protein (aa 35-586)

Lane 4 : His-tagged human CEACAM6 recombinant protein (aa 35-320)

Lane 5 : His-tagged human CEACAM8 recombinant protein (aa 35-320)

Lysates/proteins at 0.02 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

Developed using the ECL technique.

Predicted band size: 76 kDa

Observed band size: 180 kDa

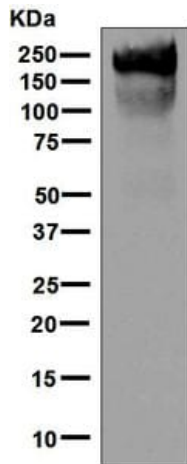
Exposure time: 3 minutes

Blocking buffer and concentration: 5% NFDm/TBST

Diluting buffer and concentration: 5% NFDm/TBST

This antibody does not cross-react with human CEACAM1, CEACAM3, CEACAM6, and CEACAM8.

This blot was developed using a high sensitivity ECL substrate.



Western blot - Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] (ab133633)

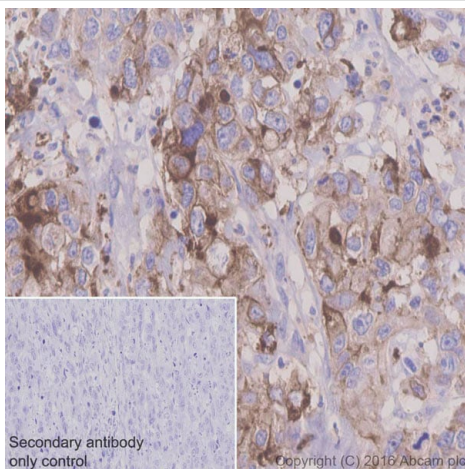
Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] (ab133633) at 1/1000 dilution + Human colon cancer lysate at 10 μ g

Secondary

Goat anti-rabbit HRP conjugated antibody at 1/2000 dilution

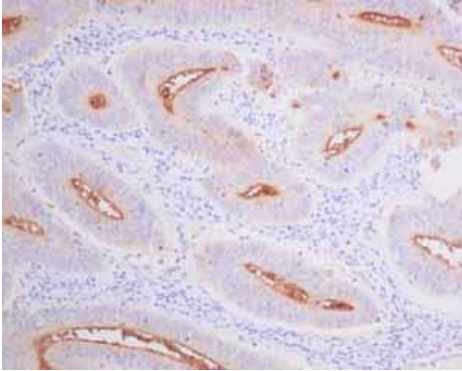
Predicted band size: 76 kDa

Observed band size: 180-200 kDa



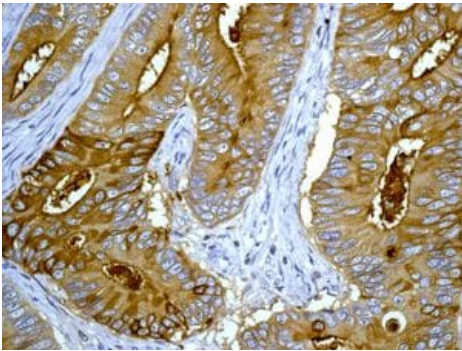
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] (ab133633)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human gastric carcinoma tissue sections labeling Carcino Embryonic Antigen CEA with Purified ab133633 at 1:3000 dilution (0.6 μ g/ml). Heat mediated antigen retrieval was performed using Perform heat mediated antigen retrieval using EDTA Buffer, PH9. Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.



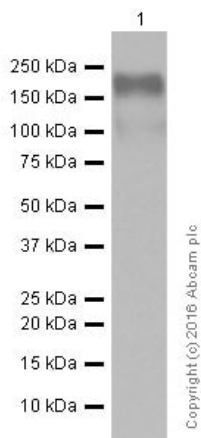
ab133633 showing positive staining in Normal colon tissue.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] (ab133633)



Immunohistochemical analysis of paraffin embedded Human colon carcinoma tissue labelling Carcino Embryonic Antigen CEA with ab133633 at 1/250.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] (ab133633)



Western blot - Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] (ab133633)

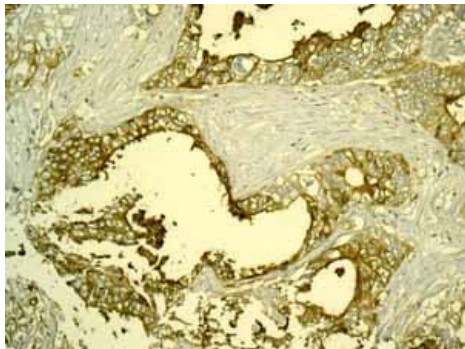
Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] (ab133633) at 0.4 µg/ml (Purified) + Human colon cancer lysate at 20 µg

Secondary

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

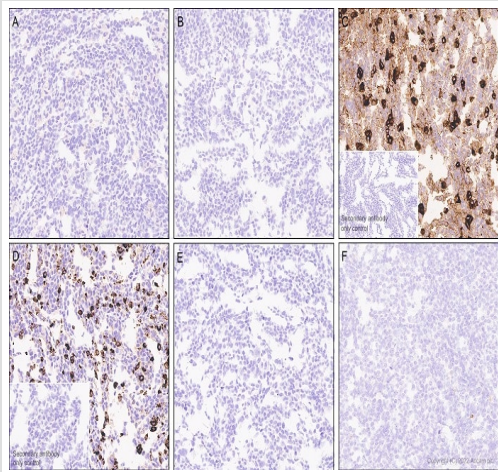
Predicted band size: 76 kDa

Blocking and diluting buffer: 5% NFDm/TBST



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] (ab133633)

ab133633 showing positive staining in Stomach adenocarcinoma tissue.



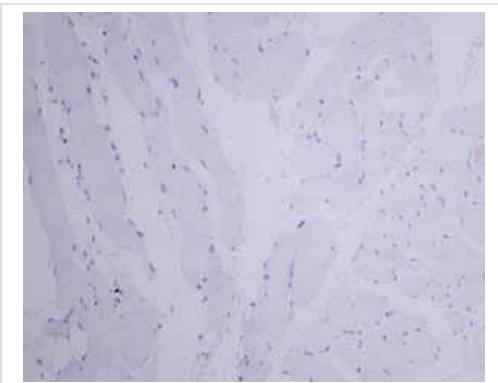
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] (ab133633)

Immunohistochemistry analysis of paraffin-embedded (A) HEK-293T cells transfected with a CEACAM1 expression vector containing a his tag, (B) HEK-293T cells transfected with a CEACAM3 expression vector containing a his tag, (C) HEK-293T cells transfected with a CEACAM5 expression vector containing a his tag, (D) HEK-293T cells transfected with a CEACAM6 expression vector containing a his tag, (E) HEK-293T cells transfected with a CEACAM8 expression vector containing a his tag and (F) HEK-293T cells transfected with empty vector containing a his tag, sections labelling Carcino Embryonic Antigen CEA with ab133633 at 1/2000 dilution. LeicaDS9800 (Bond™ Polymer Refine Detection) was used as the secondary antibody. Sections were counterstained with Hematoxylin. The section was incubated with ab133633 for 30 mins at room temperature. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.

Positive staining on HEK-293T cells transfected with a CEACAM5 expression vector containing a his tag (Image C), and HEK-293T cells transfected with a CEACAM6 expression vector containing a his tag (Image D). No staining on other cell pellet tested. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

IHC Note: ab133633 is also cross-reactive with human CEACAM6 in IHC.

ab133633 showing negative staining in Skeletal muscle tissue.

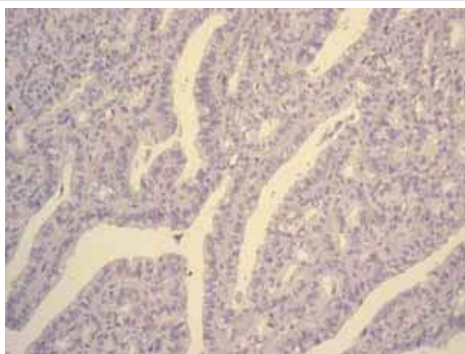


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] (ab133633)



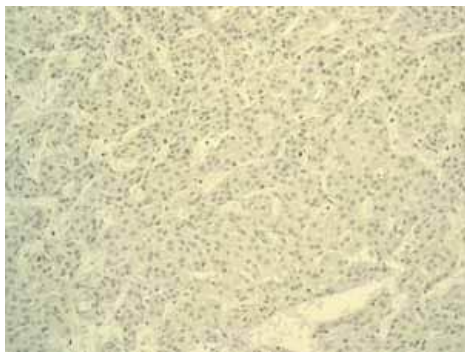
ab133633 showing negative staining in Normal tonsil tissue.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] (ab133633)



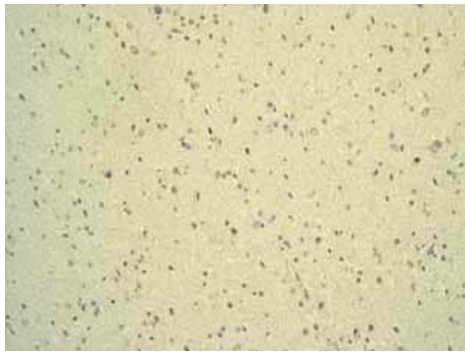
ab133633 showing negative staining in Thyroid gland carcinoma tissue.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] (ab133633)



ab133633 showing negative staining in Hepatocellular carcinoma tissue.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] (ab133633)



ab133633 showing negative staining in Glioma tissue.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] (ab133633)

Why choose a recombinant antibody?



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Confirmed specificity



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Animal-free production

Anti-Carcino Embryonic Antigen CEA antibody [EPCEAR7] (ab133633)

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