abcam

Product datasheet

Anti-ACE2 antibody [EPR4435(2)] ab108252

敲除验证 重组 RabMAb

★★★★★ 9 Abreviews 121 References 13 图像

概述

产品名称	Anti-ACE2抗体[EPR4435(2)]
描述	兔单克隆抗体[EPR4435(2)] to ACE2
宿主	Rabbit
经测试应用	**适用于:** WB, IP, IHC-P, Indirect ELISA **不适用于:** Flow Cyt or ICC/IF
种属反应性	**与反应:** Mouse, Rat, Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. (Peptide available as **ab198988**)
阳性对照	WB: Human testis, kidney and lung tissue lysates; Human fetal kidney tissue lysate; Calu-3, HepG2 and Caco-2 cell lysates. Human and rat heart tissue lysate; Human lung tissue lysate; Mouse and rat spleen, testis lung tissue lysate; IHC-P: Human, mouse, and rat kidney tissues. IP: Human testis tissue lysate.
常规说明	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 production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

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.
存储溶液	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.5% BSA
纯度	Protein A purified

克隆	单克隆
克隆编号	EPR4435(2)
同种型	IgG

应用

The Abpromise guarantee **Abpromise™承诺保证使用ab108252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。

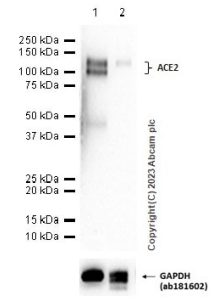
应用	Ab评论	说明
WB	★★★★☆ (5)	1/1000 - 1/10000. Predicted molecular weight: 92 kDa.Can be blocked with **ACE2 peptide (ab198988)**.
IP		1/10 - 1/100.
IHC-P	★★★★★ (1)	1/6400 - 1/32000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. **For unpurified use at 1/100 - 1/250.**
Indirect ELISA		Use at an assay dependent concentration.

应用说明	Is unsuitable for Flow Cyt or ICC/IF.

靶标

功能	Carboxypeptidase which converts angiotensin I to angiotensin 1-9, a peptide of unknown function, and angiotensin II to angiotensin 1-7, a vasodilator. Also able to hydrolyze apelin-13 and dynorphin-13 with high efficiency. May be an important regulator of heart function. In case of human coronaviruses SARS and HCoV-NL63 infections, serve as functional receptor for the spike glycoprotein of both coronaviruses.
组织特异性	Expressed in endothelial cells from small and large arteries, and in arterial smooth muscle cells. Expressed in lung alveolar epithelial cells, enterocytes of the small intestine, Leydig cells and Sertoli cells (at protein level). Expressed in heart, kidney, testis, and gastrointestinal system.
序列相似性	Belongs to the peptidase M2 family.
翻译后修饰	N-glycosylation on Asn-90 may limit SARS infectivity.
细胞定位	Secreted and Cell membrane.

图片



Western blot - Anti-ACE2 antibody [EPR4435(2)] (ab108252)

All lanes : Anti-ACE2 antibody [EPR4435(2)] (ab108252) at 1/1000 dilution

Lane 1 : Human heart tissue lysate
Lane 2 : Rat heart tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 92 kDa
Observed band size: 110,120 kDa

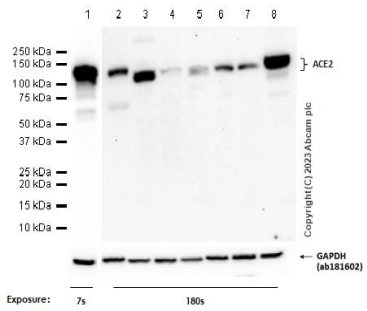
Exposure time: 180 seconds

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

ab181602 was used as a GAPDH loading control.

Two bands observed by ab108252 corresponding to glycosylation and non-glycosylation forms.

Signal in heart tissue is low, we recommend loading more amount of lysate or using lower antibody dilution to improve result.



Western blot - Anti-ACE2 antibody [EPR4435(2)] (ab108252)

All lanes : Anti-ACE2 antibody [EPR4435(2)] (ab108252) at 1/1000 dilution

Lane 1 : Human testis tissue lysate at 20 µg
Lane 2 : Human lung tissue lysate at 20 µg
Lane 3 : Mouse testis tissue lysate
Lane 4 : Mouse spleen tissue lysate
Lane 5 : Mouse lung tissue lysate
Lane 6 : Rat testis tissue lysate
Lane 7 : Rat spleen tissue lysate
Lane 8 : Rat lung tissue lysate

Secondary
All lanes : Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 92 kDa
Observed band size: 110,120 kDa

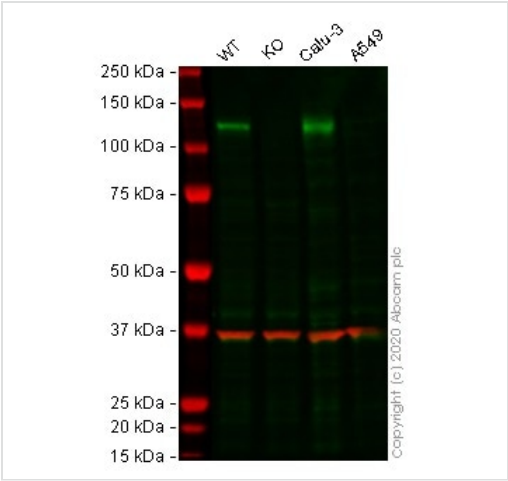
Blocking and diluting buffer and concentration: 5% NFDM/TBST.

ab181602 was used as GAPDH loading control.

Exposure time: Lane 1: 7 seconds; Lane 2-8: 180 seconds.

Two bands observed by ab108252 corresponding to glycosylation and non-glycosylation forms.

Signal in mouse and rat tissues are low, we recommend loading more amount of lysate or using lower antibody dilution to improve result.



Western blot - Anti-ACE2 antibody [EPR4435(2)] (ab108252)

All lanes : Anti-ACE2 antibody [EPR4435(2)] (ab108252) at 1/1000 dilution

Lane 1 : Wild-type HepG2 cell lysate
Lane 2 : ACE2 knockout HepG2 cell lysate
Lane 3 : Calu-3 cell lysate
Lane 4 : A549 cell lysate

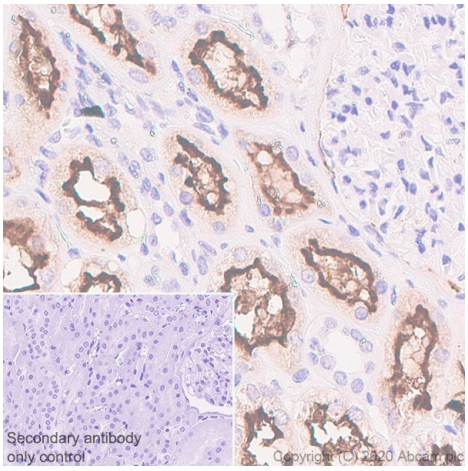
Lysates/proteins at 30 µg per lane.

Performed under reducing conditions.

Predicted band size: 92 kDa
Observed band size: 130 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab108252 observed at 130 kDa. Red - loading control **ab8245** (Mouse anti-GAPDH antibody [6C5]) observed at 37kDa.

ab108252 was shown to react with ACE2 in wild-type HepG2 cells in western blot with loss of signal observed in ACE2 knockout cell line **ab273733** (knockout cell lysate **ab275495**). Wild-type and ACE2 knockout HepG2 cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3% milk in TBS-T (0.1% Tween®) before incubation with ab108252 and **ab8245** (Mouse anti-GAPDH antibody [6C5]) overnight at 4°C at a 1 in 1000 dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

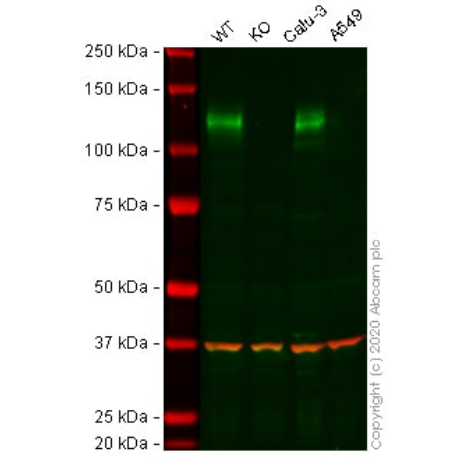


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ACE2 antibody [EPR4435(2)] (ab108252)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue labeling ACE2 with ab108252 at 1/6400 dilution. Heat mediated antigen retrieval was performed using Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 20 minutes. Staining was visualised using Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

The section was incubated with ab108252 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Western blot - Anti-ACE2 antibody [EPR4435(2)] (ab108252)

All lanes : Anti-ACE2 antibody [EPR4435(2)] (ab108252) at 1/1000 dilution

Lane 1 : Wild-type Caco-2 cell lysate
Lane 2 : ACE2 knockout Caco-2 cell lysate
Lane 3 : Calu-3 cell lysate
Lane 4 : A549 cell lysate

Lysates/proteins at 30 µg per lane.

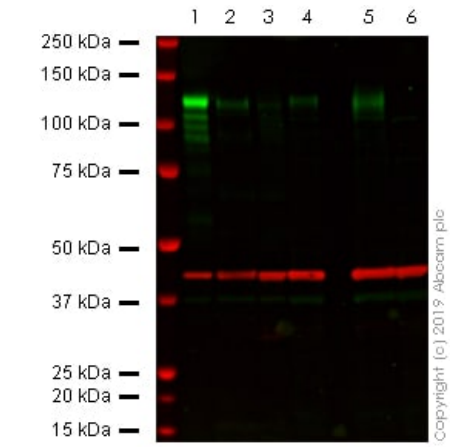
Performed under reducing conditions.

Predicted band size: 92 kDa
Observed band size: 125 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab108252 observed at 125 kDa. Red - loading control **ab8245** (Mouse anti-GAPDH antibody [6C5]) observed at 37kDa.

ab108252 was shown to react with ACE2 in Caco-2 wild-type cells in western blot with loss of signal observed in ACE2 knockout cell line **ab273731** (knockout cell lysate **ab275516**). Wild-type and ACE2 knockout Caco-2 cell lysates were subjected to SDS-PAGE. Membranes were blocked in fluorescent western blot (TBS-based) blocking solution before incubation with ab108252 and **ab8245** (Mouse anti-GAPDH antibody [6C5]) overnight at 4°C at a 1 in 1000 Dilution and a 1 in 20000 dilution respectively. Blots were

incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-ACE2 antibody [EPR4435(2)] (ab108252)

All lanes : Anti-ACE2 antibody [EPR4435(2)] (ab108252) at 1/1000 dilution

Lane 1 : Human testis cell lysate
Lane 2 : Human kidney cell lysate
Lane 3 : Human lung cell lysate
Lane 4 : HepG2 cell lysate
Lane 5 : Caco-2 cell lysate
Lane 6 : A549 cell lysate (negative control)

Lysates/proteins at 20 µg per lane.

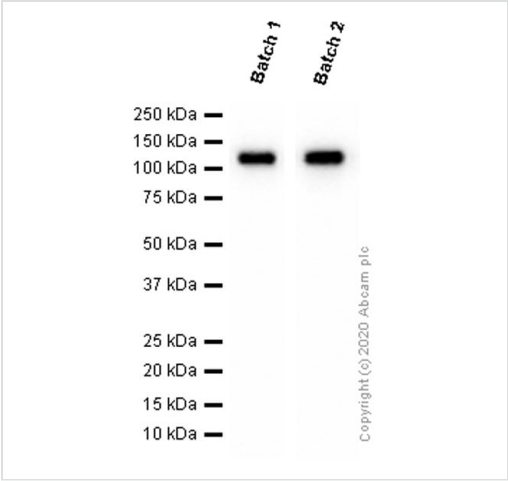
Performed under reducing conditions.

Predicted band size: 92 kDa
Observed band size: 120 kDa

Lanes 1 - 6: Merged signal (red and green). Green - ab108252 observed at 120 kDa. Red - loading control, Mouse anti-Actin observed at 42kDa.

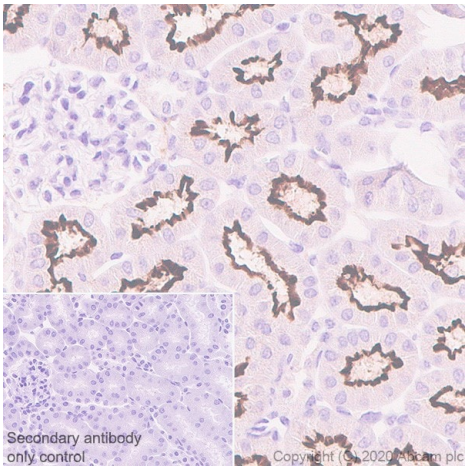
ab108252 was shown to react with ACE2 in western blot. Membranes were blocked in 3% milk in TBS-T (0.1% Tween®) before incubation with ab108252 and Mouse anti Actin overnight at 4°C at a 1 in 1000 dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

Absence of ACE2 expression in A549 cells aligns with previously reported mRNA and protein data (PMID 16282461; fig.2b and 2c).



Western blot - Anti-ACE2 antibody [EPR4435(2)] (ab108252)

Different batches of ab108252 were tested on Human kidney lysate at 0.2 µg/ml. 15 µg of lysate was loaded in each lane. Bands observed at 120 kDa.

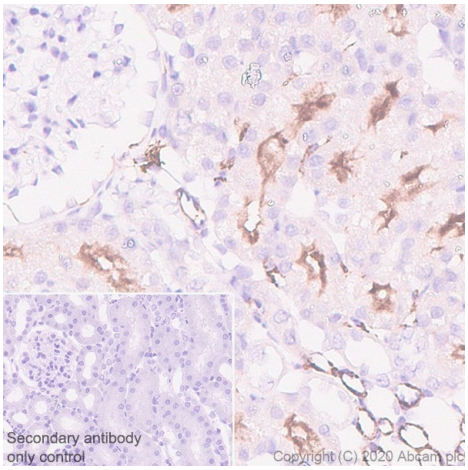


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ACE2 antibody [EPR4435(2)] (ab108252)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse kidney tissue labeling ACE2 with ab108252 at 1/6400 dilution. Heat mediated antigen retrieval was performed using Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 20 minutes. Staining was visualised using Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

The section was incubated with ab108252 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

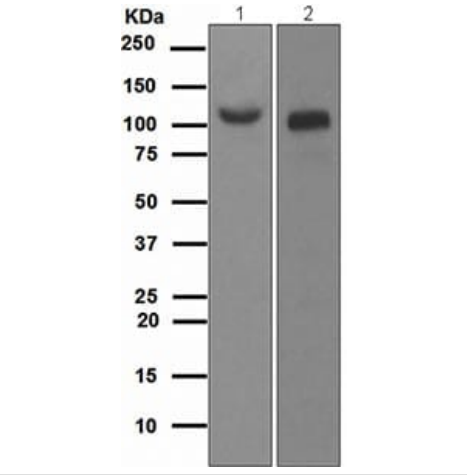


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ACE2 antibody [EPR4435(2)] (ab108252)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat kidney tissue labeling ACE2 with ab108252 at 1/6400 dilution. Heat mediated antigen retrieval was performed using Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 20 minutes. Staining was visualised using Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

The section was incubated with ab108252 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



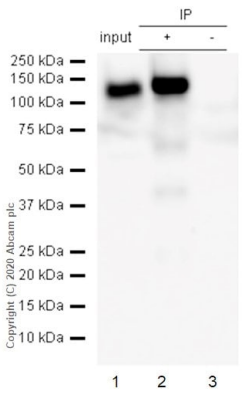
Western blot - Anti-ACE2 antibody [EPR4435(2)] (ab108252)

All lanes : Anti-ACE2 antibody [EPR4435(2)] (ab108252) at 1/1000 dilution

Lane 1 : Human fetal kidney lysate
Lane 2 : Human testis lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 92 kDa



Immunoprecipitation - Anti-ACE2 antibody [EPR4435(2)] (ab108252)

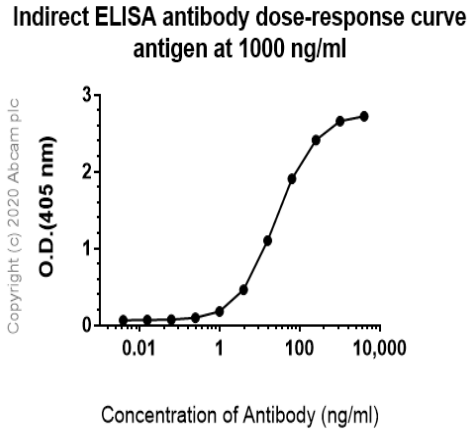
ab108252 Immunoprecipitating ACE2 in human testis tissue lysate. 0.35 mg of tissue lysate was incubated with 0.6 µg primary antibody (1/20). For western blotting a HRP-conjugated Veriblot for IP Detection Reagent (**ab131366**) (1/1000) was used to confirm successful immunoprecipitation.

Exposure time: 1 second.
Blocking buffer and concentration: 5% NFDM/TBST.
Diluting buffer and concentration: 5% NFDM /TBST.

All lanes : Anti-ACE2 antibody [EPR4435(2)] (ab108252) at 1/500 dilution

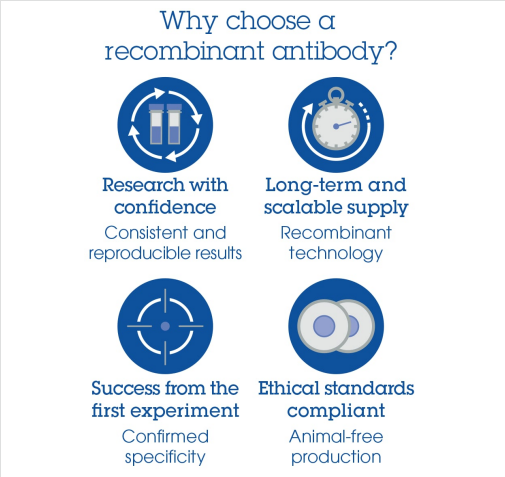
Lane 1 : Human testis tissue lysate at 10 µg
Lane 2 : ab108252 + Human testis tissue lysate
Lane 3 : Rabbit monoclonal IgG (**ab172730**) instead of ab108252 in Human testis tissue lysate

Observed band size: 110 kDa



Indirect ELISA - Anti-ACE2 antibody [EPR4435(2)] (ab108252)

ELISA using ab108252 at varying antibody concentrations (4000~0 ng/ml) and antigen concentration at 1000 ng/mL. An Alkaline Phosphatase-conjugated Goat Anti-Rabbit IgG (H+L) (1/2500) was used as the secondary antibody.



Anti-ACE2 antibody [EPR4435(2)] (ab108252)

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