abcam

ab176333

Anti-KDEL antibody [EPR12668]

Anti-KDEL antibody [EPR12668] (ab176333) is a rabbit monoclonal antibody detecting KDEL in **Western Blot, Flow Cytometry (Intra), IHC-P, ICC/IF**. Suitable for **Human, Mouse, Rat**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 20 publications

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.06% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR12668
Purification technique	Affinity purification Protein A
Concentration	1.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human

Dilution info	1/100 - 1/250
Notes	-

Expected

Species	Mouse
Dilution info	1/100 - 1/250
Notes	-

Species	Rat
Dilution info	1/100 - 1/250
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000 - 1/10000
Notes	-

Species	Rat
Dilution info	1/1000 - 1/10000
Notes	-

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

IHC-P

Tested

Species	Mouse
Dilution info	1/50 - 1/350
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Rat
Dilution info	1/50 - 1/350
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Human
Dilution info	1/50 - 1/350
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

Species	Mouse
Dilution info	1/10 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Rat
Dilution info	1/10 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target data

See full target information KDEL

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-KDEL antibody [EPR12668] (ab176333) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human, Mouse, Rat samples.

What is the molecular weight of KDEL?
Anti-KDEL [EPR12668] (ab176333) specifically detects a band for KDEL (UniProt: P24390) at a molecular weight of 25kDa.

Trusted by the scientific community
Anti-KDEL [EPR12668] (ab176333) was first used in a scientific publication in 2013 and has been cited over 20 times in peer-reviewed journals.

Other related products
We have a range of other formats of antibody clone [EPR12668] also available for your convenience: ab176333, Alexa Fluor® 488 - ab184819, Alexa Fluor® 594 - ab203411, Alexa Fluor® 555 - ab203420, Alexa Fluor® 647 - ab214714, Carrier free - ab240190

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

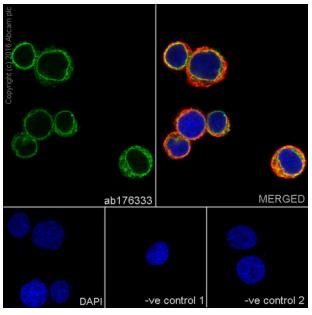
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

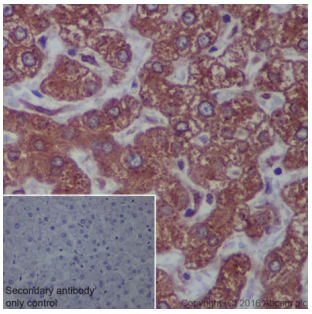
9 product images



Immunocytochemistry/ Immunofluorescence - Anti-KDEL antibody [EPR12668] (ab176333)

KDEL Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-KDEL antibody

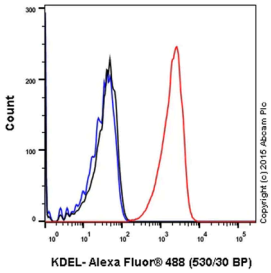
Immunocytochemistry/Immunofluorescence analysis of Jurkat cells labelling KDEL with purified ab176333 at 1/200. Cells were fixed with 4% Paraformaldehyde and permeabilized using 0.1% Triton X-100. ab150077, Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. Cells were co-stained with ab7291, a mouse anti-tubulin antibody (1/1000) using ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000) as the secondary. Nuclei were counterstained with DAPI (blue).
For negative control 1, ab150120 (Rabbit primary antibody) and anti-mouse secondary antibody were used and for negative control 2, ab7291 (Mouse primary antibody) and ab150077 (anti-rabbit secondary antibody) were used.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-KDEL antibody [EPR12668] (ab176333)

KDEL Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-KDEL antibody

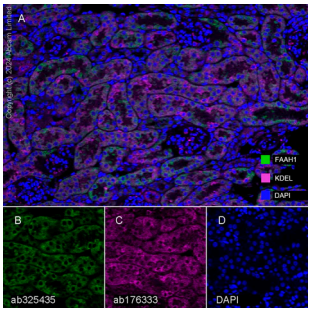
Immunohistochemical analysis of paraffin-embedded human liver sections labelling KDEL with purified ab176333 at dilution of 1:350. The secondary antibody used was ab97051; a goat anti-rabbit IgG H&L (HRP) at dilution of 1/500. The sample was counterstained with hematoxylin. Antigen retrieval was performed using EDTA Buffer; pH 9.0. PBS was used instead of the primary antibody as the negative control and is shown in the inset.



Flow Cytometry (Intracellular) - Anti-KDEL antibody [EPR12668] (ab176333)

KDEL Flow Cytometry (Intracellular) staining using rabbit Anti-KDEL antibody

Overlay histogram showing 4% paraformaldehyde fixed HeLa cells labelling KDEL (red) with purified ab176333 at dilution of 1/100. The secondary antibody used was Alexa Fluor® 488 goat-anti-rabbit IgG at dilution of 1/2000. A non-specific IgG antibody (rabbit monoclonal) was used as isotype control (black). The blue line shows cells without incubation with primary antibody and secondary antibody.



Multiplex immunohistochemistry - Anti-KDEL antibody [EPR12668] (ab176333)

KDEL Multiplex immunohistochemistry staining of Mouse kidney using rabbit Anti-KDEL antibody

Multiplex immunohistochemistry analysis of formalin/PFA-fixed paraffin-embedded mouse kidney tissue staining FAAH1 with ab325435 at a 1:2000 (0.256 ug/ml) dilution, ab176333 anti-KDEL used at 1:5000 (0.098 ug/ml) dilution.

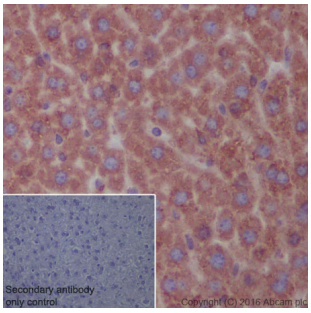
Panel A: anti-FAAH1 (green; Opal™520), anti-KDEL (magenta; Opal™570) on mouse kidney.
Panel B: anti-FAAH1 showed granular staining in mouse kidney.
Panel C: anti-KDEL showed ER staining in mouse kidney.
Panel D: Nuclear DNA was labeled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab325435 and ab176333 for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.

Nuclear counter stain with DAPI.

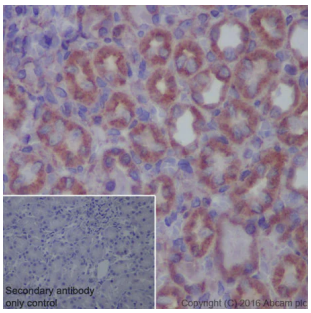
Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-KDEL antibody [EPR12668] (ab176333)

KDEL Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-KDEL antibody

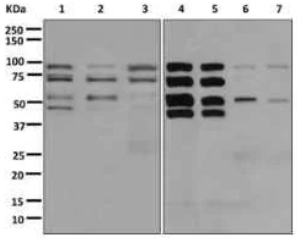
Immunohistochemical analysis of paraffin-embedded mouse liver sections labelling KDEL with purified ab176333 at dilution of 1:350. The secondary antibody used was ab97051; a goat anti-rabbit IgG H&L (HRP) at dilution of 1/500. The sample was counterstained with hematoxylin. Antigen retrieval was performed using EDTA Buffer; pH 9.0. PBS was used instead of the primary antibody as the negative control and is shown in the inset.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-KDEL antibody [EPR12668] (ab176333)

KDEL Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-KDEL antibody

Immunohistochemical analysis of paraffin-embedded rat kidney sections labelling KDEL with purified ab176333 at dilution of 1:350. The secondary antibody used was ab97051; a goat anti-rabbit IgG H&L (HRP) at dilution of 1/500. The sample was counterstained with hematoxylin. Antigen retrieval was performed using EDTA Buffer; pH 9.0. PBS was used instead of the primary antibody as the negative control and is shown in the inset.



Western blot - Anti-KDEL antibody [EPR12668] (ab176333)

All lanes:
Western blot - Anti-KDEL antibody [EPR12668] (ab176333) at 1/1000 dilution

Lane 1:
293T cell lysate at 10 µg

Lane 2:
MCF7 cell lysate at 10 µg

Lane 3:
Raji cell lysate at 10 µg

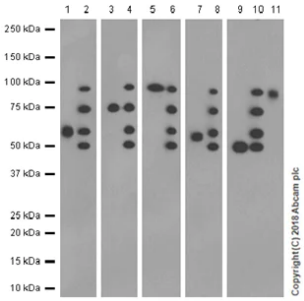
Lane 4:
HepG2 cell lysate at 10 µg

Lane 5:
HeLa cell lysate at 10 µg

Lane 6:
Jurkat cell lysate at 10 µg

Lane 7:
K562 cell lysate at 10 µg

Predicted band size: 25 kDa



Western blot - Anti-KDEL antibody [EPR12668] (ab176333)

KDEL Western blot staining of HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysate using rabbit Anti-KDEL antibody

ab176333 detected several bands which have similar MWs with some proteins containing carboxyl terminal KDEL motifs, including P4HB, GRP78 BiP, GRP94, PDIA6 and LEPRE1 (PMID: 25683117, PMID: 19741001, PMID: 22079671, PMID: 28648146, PMID: 22615817). It indicates that ab176333 might recognize these proteins.
Blocking and diluting buffer and concentration: 5% NFDM/TBST.

All lanes:
Western blot - Anti-KDEL antibody [EPR12668] (ab176333) at 1/5000 dilution

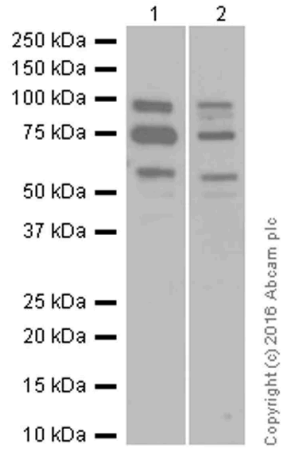
All lanes:
HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/20000 dilution

Predicted band size: 25 kDa

Exposure time: 3min



Western blot - Anti-KDEL antibody [EPR12668] (ab176333)

Observed band size : 94,78,57,48
Blocking/Diluting buffer 5% NFDM/TBST

All lanes:
Western blot - Anti-KDEL antibody [EPR12668] (ab176333) at 1/10000 dilution

Lane 1:
Raw264.7 whole cell lysate at 20 µg

Lane 2:
C6 whole cell lysate at 20 µg

Secondary

All lanes:
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/2000 dilution

Predicted band size: 25 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.