abcam

ab305239

Anti-UBR7 antibody [EPR26170-67]

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), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR26170-67
Purification technique	Affinity purification Protein A
Concentration	0.471 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Species	Mouse

Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/500
Notes	-

Species	Mouse
Dilution info	1/500
Notes	-

Species	Rat
Dilution info	1/500
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Species	Mouse
Dilution info	1/100
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50
Notes	-

Species	Mouse
Dilution info	1/50
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

Species	Mouse
Dilution info	1/30
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

ChIP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information UBR7

Function	E3 ubiquitin-protein ligase which is a component of the N-end rule pathway. Recognizes and binds to proteins bearing specific N-terminal residues that are destabilizing according to the N-end rule, leading to their ubiquitination and subsequent degradation.

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

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.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	UBR7 also known as E3 ubiquitin-protein ligase UBR7 is a protein encoded by the UBR7 gene. The molecular mass of UBR7 is approximately 82 kDa. This protein is expressed in various human tissues with notable higher levels in the liver kidney and heart. Mechanically UBR7 functions as an E3 ubiquitin ligase which means it plays a role in attaching ubiquitin molecules to specific substrates marking them for degradation by the proteasome.
Biological function summary	UBR7 acts within cellular protein quality control by ensuring misfolded or damaged proteins are ubiquitinated for degradation. It is part of a larger ubiquitin-proteasome system which tightly controls protein turnover and homeostasis within the cell. This system helps maintain cell functions by regulating the abundance of key proteins involved in various cellular processes such as signal transduction and cell cycle control.
Pathways	The ubiquitin-proteasome system where UBR7 plays a significant role intersects with the cell cycle regulation and DNA damage response pathways. UBR7 interacts with proteins like p53 a well-known tumor suppressor playing a regulatory role in its stability and activity. Additionally it is involved in pathways concerning apoptosis contributing to programmed cell death when abnormal cells are detected.
Associated diseases and disorders	Aberrations in UBR7 activity have been linked to cancer particularly related to disruptions in the regulation of p53. The dysregulation can lead to uncontrolled cell growth and tumor development. UBR7 also associates with neurodegenerative disorders where the accumulation of misfolded proteins due to impaired ubiquitination contributes to neuronal damage. Here its connection with proteins such as Tau is significant as abnormal ubiquitination patterns have been observed in cases of Alzheimer's disease.

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.

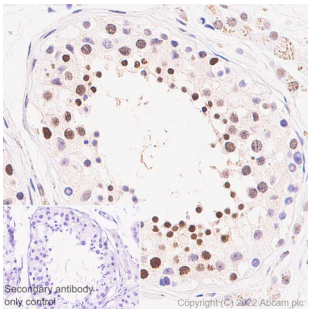
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

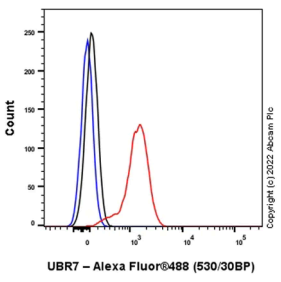
---

12 product images



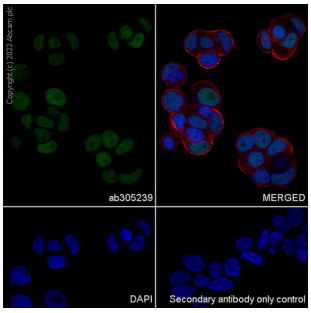
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-UBR7 antibody [EPR26170-67] (ab305239)

Immunohistochemical analysis of paraffin-embedded Human testis tissue labeling UBR7 with ab305239 at 1/500 (0.942 µg/ml) followed by a Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) at Ready to use dilution. Nuclear staining in human testis. The section was incubated with ab305239 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) at Ready to use dilution. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



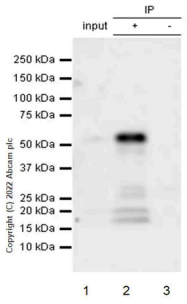
Flow Cytometry (Intracellular) - Anti-UBR7 antibody [EPR26170-67] (ab305239)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized MCF7 (human breast adenocarcinoma epithelial cell) cells labelling UBR7 with ab305239 at 1/50 dilution (1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody.



Immunocytochemistry - Anti-UBR7 antibody [EPR26170-67] (ab305239)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized MCF7 (human breast adenocarcinoma epithelial cell) cells labelling UBR7 with ab305239 at 1/100 dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green). Confocal image showing nuclear staining in MCF7 cell line. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8). 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.



Immunoprecipitation - Anti-UBR7 antibody [EPR26170-67] (ab305239)

UBR7 was immunoprecipitated from 0.35 mg MCF7 (human breast adenocarcinoma epithelial cell), whole cell lysate 10 µg with ab305239 at 1/30 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab305239 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution. Lane 1: MCF7 (human breast adenocarcinoma epithelial cell), whole cell lysate 10 µg Lane 2: ab305239 IP in MCF7 whole cell lysate Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab305239 in MCF7 whole cell lysate Blocking and dilution buffer and concentration: 5% NFDM/TBST. Exposure time: 32 seconds The bands beneath the target band (55 kDa) are likely to be degraded target fragments
All lanes:
Immunoprecipitation - Anti-UBR7 antibody [EPR26170-67] (ab305239) at 1/30 dilution

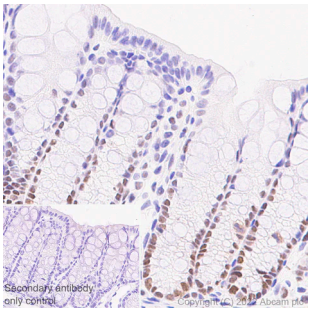
All lanes:
MCF7 (human breast adenocarcinoma epithelial cell)

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

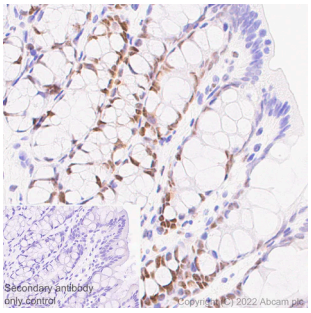
Observed band size: 55 kDa

Exposure time: 32s



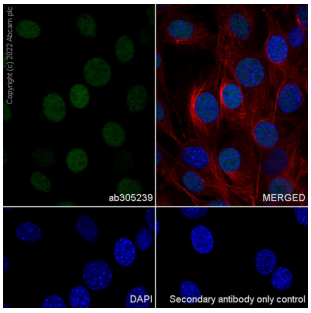
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-UBR7 antibody [EPR26170-67] (ab305239)

Immunohistochemical analysis of paraffin-embedded Mouse colon tissue labeling UBR7 with ab305239 at 1/500 (0.942 µg/ml) followed by a Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) at Ready to use dilution. Nuclear staining in mouse colon. The section was incubated with ab305239 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) at Ready to use dilution. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



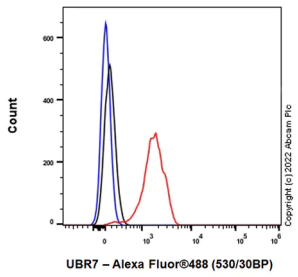
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-UBR7 antibody [EPR26170-67] (ab305239)

Immunohistochemical analysis of paraffin-embedded Rat colon tissue labeling UBR7 with ab305239 at 1/500 (0.942 µg/ml) followed by a Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) at Ready to use dilution. Nuclear staining in rat colon. The section was incubated with ab305239 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) at Ready to use dilution. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



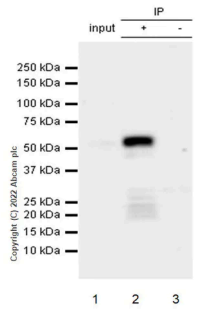
Immunocytochemistry/ Immunofluorescence - Anti-UBR7 antibody [EPR26170-67] (ab305239)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized NIH/3T3 (mouse embryonic fibroblast) cells labelling UBR7 with ab305239 at 1/100 dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green). Confocal image showing nuclear staining in NIH/3T3 cell line.Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8). 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 (Intracellular) - Anti-UBR7 antibody [EPR26170-67] (ab305239)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized NIH/3T3 (mouse embryonic fibroblast) cells labelling UBR7 with ab305239 at 1/50 dilution (1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-UBR7 antibody [EPR26170-67] (ab305239)

UBR7 was immunoprecipitated from 0.35 mg NIH/3T3 (mouse embryonic fibroblast), whole cell lysate 10 µg with ab305239 at 1/30 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab305239 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution. Lane 1: NIH/3T3 (mouse embryonic fibroblast), whole cell lysate 10 µg Lane 2: ab305239 IP in NIH/3T3 whole cell lysate Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab305239 in NIH/3T3 whole cell lysate Blocking and dilution buffer and concentration: 5% NFDM/TBST. Exposure time: 24 seconds The bands beneath the target band (55 kDa) are likely to be degraded target fragments
All lanes:
Immunoprecipitation - Anti-UBR7 antibody [EPR26170-67] (ab305239) at 1/30 dilution

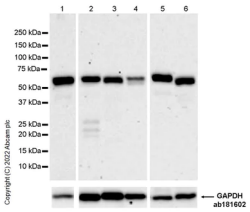
All lanes:
NIH/3T3 (mouse embryonic fibroblast)

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Observed band size: 55 kDa

Exposure time: 24s



Western blot - Anti-UBR7 antibody [EPR26170-67] (ab305239)

Blocking and diluting buffer and concentration: 5% NFDM/TBST The bands beneath the target band (55 kDa) are likely to be degraded target fragments Exposure time: 3 minutes
All lanes:
Western blot - Anti-UBR7 antibody [EPR26170-67] (ab305239) at 1/1000 dilution

Lane 1:
T-47D (human ductal breast epithelial tumor epithelial cell), whole cell lysate at 20 µg

Lane 2:
RAW264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage), whole cell lysate at 20 µg

Lane 3:
C6 (rat glial tumor glial cell), whole cell lysate at 20 µg

Lane 4:
Human testis tissue lysate at 20 µg

Lane 5:
Mouse testis tissue lysate at 20 µg

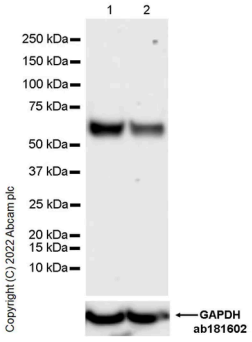
Lane 6:
Rat testis tissue lysate at 20 µg

Secondary

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

Observed band size: 55 kDa

Exposure time: 3min



Western blot - Anti-UBR7 antibody [EPR26170-67] (ab305239)

Blocking and diluting buffer and concentration: 5% NFDM/TBST Exposure time: 48 seconds
All lanes:
Western blot - Anti-UBR7 antibody [EPR26170-67] (ab305239) at 1/1000 dilution

Lane 1:
MCF7 (human breast adenocarcinoma epithelial cell)transfected with scrambled siRNA control, whole cell lysate at 20 µg

Lane 2:
MCF7 transfected with siRNA specifically targeti UBR7, whole cell lysate at 20 µg

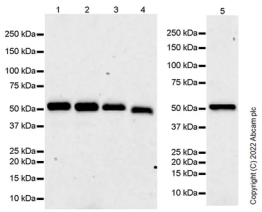
Secondary

All lanes:

Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Observed band size: 55 kDa

Exposure time: 48s



Western blot - Anti-UBR7 antibody [EPR26170-67] (ab305239)

Blocking and diluting buffer and concentration: 5% NFDM/TBST Lysates were freshly made and used for Western blotting immediately to minimize protein degradation. Exposure time: 3 minutes
All lanes:
Western blot - Anti-UBR7 antibody [EPR26170-67] (ab305239) at 1/1000 dilution

Lane 1:
HeLa (human cervix adenocarcinoma epithelial cell), whole cell lysate at 20 µg

Lane 2:
293T (human embryonic kidney epithelial cell), whole cell lysate at 20 µg

Lane 3:
NIH/3T3 (mouse embryonic fibroblast), whole cell lysate at 20 µg

Lane 4:
PC-12 (rat adrenal gland pheochromocytoma), whole cell lysate at 20 µg

Lane 5:
MCF7 (human breast adenocarcinoma epithelial cell), whole cell lysate at 20 µg

Secondary

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

Observed band size: 55 kDa

Exposure time: 3min

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