abcam

ab203826

Anti-p40 - DeltaNp63 antibody [EPR17863-47]

Anti-p40 - DeltaNp63 antibody [EPR17863-47] (ab203826) is a rabbit monoclonal antibody detecting p40 - DeltaNp63 in **Western Blot, Flow Cytometry (Intra), IP, IHC-P, ICC/IF**. Suitable for **Human, Mouse, Rat**.

- Biophysical QC for unrivalled batch-batch consistency

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	EPR17863-47
Purification technique	Affinity purification Protein A
Concentration	0.455 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/30

Notes	-

Expected

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

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Expected

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

IHC-P

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000

Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/400
Notes	-

Expected

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

Target data

See full target information TP63

Function	Acts as a sequence specific DNA binding transcriptional activator or repressor. The isoforms contain a varying set of transactivation and auto-regulating transactivation inhibiting domains thus showing an isoform specific activity. Isoform 2 activates RIPK4 transcription. May be required in conjunction with

TP73/p73 for initiation of p53/TP53 dependent apoptosis in response to genotoxic insults and the presence of activated oncogenes. Involved in Notch signaling by probably inducing JAG1 and JAG2. Plays a role in the regulation of epithelial morphogenesis. The ratio of DeltaN-type and TA*-type isoforms may govern the maintenance of epithelial stem cell compartments and regulate the initiation of epithelial stratification from the undifferentiated embryonal ectoderm. Required for limb formation from the apical ectodermal ridge. Activates transcription of the p21 promoter.

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-p40 - DeltaNp63 antibody [EPR17863-47] (ab203826) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human, Mouse, Rat samples.

What is the molecular weight of p40 - DeltaNp63?
Anti-p40 - DeltaNp63 [EPR17863-47] (ab203826) specifically detects a band for p40 - DeltaNp63 (UniProt: Q9H3D4) at a molecular weight of 77kDa.

Other related products
We have a range of other formats of antibody clone [EPR17863-47] also available for your convenience: ab203826, Carrier free - ab269956, Alexa Fluor® 647 - ab275134

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.

Supplementary info

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

Activity summary	The biological target p40 also known as ΔNp63 is an essential protein isoform of the p63 gene. This target weighs approximately 40 kDa and is expressed predominantly in epithelial tissues such as the basal layer of the skin and select organs. Due to its significant role in development and differentiation researchers often study p40 in the context of specific cancers using techniques like p40 immunostaining p40 IHC and p40 marker assays including the anti-p40 stain.
Biological function summary	The p40 protein acts as a transcription factor regulating epithelial stem cell maintenance and differentiation. It is an integral component of the tetrameric complex of the p63 protein family where it influences the transcription of genes involved in cell cycle control and apoptotic pathways. The ΔNp63 variant lacking the N-terminal transactivation domain plays an important role in blocking premature senescence contributing to cell proliferative capacity.
Pathways	P40 is involved in the Notch signaling and the PI3K/AKT signaling pathways. In Notch signaling p40 interacts alongside related proteins like bcl-2 or B28 impacting the regulation of cell fate and differentiation. The PI3K/AKT pathway involves p40 in processes essential for cell survival and proliferation often overlapping with proteins such as AKT and mTOR.
Associated diseases and disorders	P40 significantly links to various forms of cancer especially squamous cell carcinoma and lung adenocarcinoma. Aberrant expression of ΔNp63 and its disruption in pathways contribute to the pathogenesis of these cancers. In squamous cell carcinoma p40 expression serves as an important biomarker distinguishing it from other tumor types connecting with proteins like Bcl-2 which are important in managing apoptotic resistance in cancerous cells.

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.

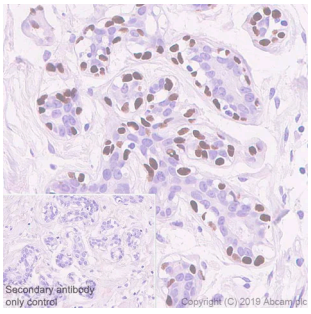
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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:
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9 product images

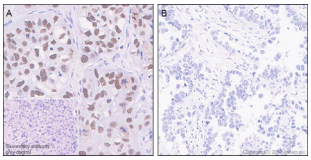


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p40 - DeltaNp63 antibody [EPR17863-47] (ab203826)

P40 - DeltaNp63 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-p40 - DeltaNp63 antibody

Immunohistochemical analysis of paraffin-embedded human breast tissue labeling p40 - DeltaNp63 with ab203826 at 1/1000 followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on the basal cells of the human breast tissue is observed (PMID: 11839669; PMID: 28303349) The section was incubated with ab203826 for 10 mins at room temperature. The immunostaining staining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.

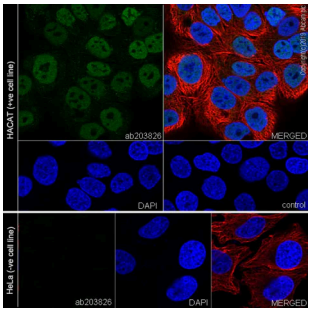


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p40 - DeltaNp63 antibody [EPR17863-47] (ab203826)

Immunohistochemical analysis of paraffin-embedded human lung squamous cell carcinoma and adenocarcinoma tissue labeling p40 - DeltaNp63 with ab203826 at a 1/1000 dilution followed by ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Counterstained with hematoxylin.
Nuclear staining on the squamous cell carcinoma (Panel A), negative staining on the adenocarcinoma (Panel B) is observed (PMID: 23486764).

The section was incubated with ab203826 for 10 mins at room temperature. The immunostaining staining was performed on a Leica Biosystems BOND® RX instrument.

Heat mediated antigen retrieval with citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.



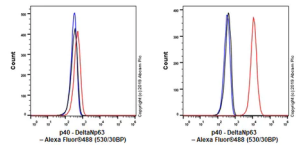
Immunocytochemistry/ Immunofluorescence - Anti-p40 - DeltaNp63 antibody [EPR17863-47] (ab203826)

P40 - DeltaNp63 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-p40 - DeltaNp63 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HaCaT (human skin keratinocyte) HeLa (human cervix adenocarcinoma epithelial cell) cells labeling p40 - DeltaNp63 with ab203826 at 1/50 dilution, followed by ab150077 AlexaFluor® 488 Goat anti-Rabbit secondary antibody at 1/1000 dilution (Green). Confocal image showing strong nuclear and weak cytoplasmic staining in HaCaT cells.
Negative control: HeLa (PMID: 21631996).

ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The nuclear counterstain was DAPI (Blue).

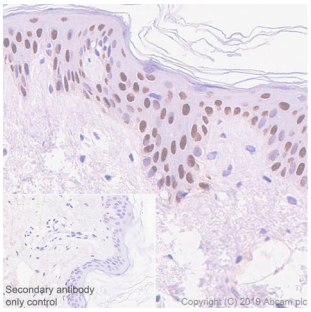
Secondary antibody only control: Secondary antibody is ab150077 AlexaFluor® 488 Goat anti-Rabbit secondary at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-p40 - DeltaNp63 antibody [EPR17863-47] (ab203826)

P40 - DeltaNp63 Flow Cytometry (Intracellular) staining using rabbit Anti-p40 - DeltaNp63 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HeLa (Human cervix adenocarcinoma epithelial cell, Left) / HaCaT (Human skin keratinocyte, Right) cells labeling p40 - DeltaNp63 with ab203826 at 1/400 (Red) compared with a Rabbit monoclonal IgG (ab172730) / Black isotype control and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluorr® 488, ab150077) at 1/2000 was used as the secondary antibody.
Negative control: HeLa. (PMID: 21631996).

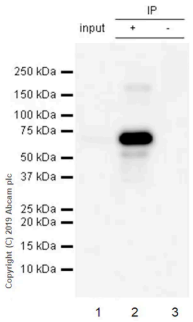


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p40 - DeltaNp63 antibody [EPR17863-47] (ab203826)

P40 - DeltaNp63 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-p40 - DeltaNp63 antibody

Immunohistochemical analysis of paraffin-embedded human skin tissue labeling p40 - DeltaNp63 with ab203826 at 1/1000 followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Nuclear staining on the epidermis of the human skin is observed (PMID: 11839669). The section was incubated with ab203826 for 10 mins at room temperature. The immunostaining staining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.



Immunoprecipitation - Anti-p40 - DeltaNp63 antibody [EPR17863-47] (ab203826)

p40 - DeltaNp63 was immunoprecipitated from 0.35 mg HaCaT (Human skin keratinocyte) whole cell lysate 10µg with ab203826 at 1/30 dilution (2µg in 0.35 mg lysates). Western blot was performed on the immunoprecipitate using ab203826 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used at 1/5000 dilution.
Lane 1: HaCaT whole cell lysate 10µg.

Lane 2: ab203826 IP in HaCaT whole cell lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab203826 in HaCaT whole cell lysate.

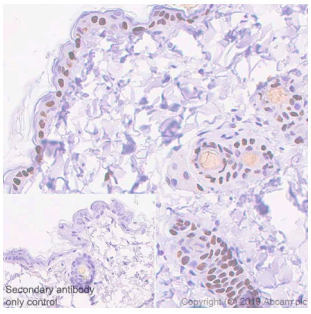
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 seconds.

All lanes:
Immunoprecipitation - Anti-p40 - DeltaNp63 antibody [EPR17863-47] (ab203826)

Predicted band size: 53 kDa

Observed band size: 66 kDa

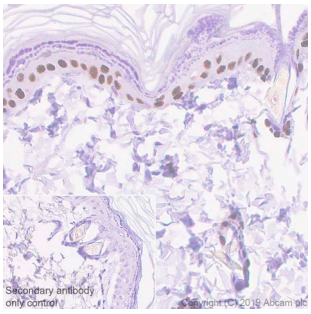


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p40 - DeltaNp63 antibody [EPR17863-47] (ab203826)

P40 - DeltaNp63 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-p40 - DeltaNp63 antibody

Immunohistochemical analysis of paraffin-embedded mouse skin tissue labeling p40 - DeltaNp63 with ab203826 at 1/1000 followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Nuclear staining on the epidermis of the mouse skin is observed. The section was incubated with ab203826 for 10 mins at room temperature. The immunostaining staining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.

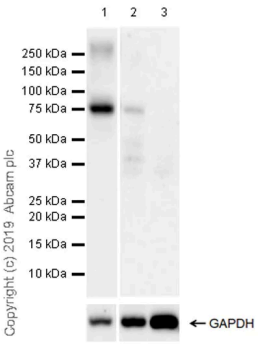


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p40 - DeltaNp63 antibody [EPR17863-47] (ab203826)

P40 - DeltaNp63 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-p40 - DeltaNp63 antibody

Immunohistochemical analysis of paraffin-embedded rat skin tissue labeling p40 - DeltaNp63 with ab203826 at 1/1000 followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Nuclear staining on the epidermis of the rat skin is observed. The section was incubated with ab203826 for 10 mins at room temperature. The immunostaining staining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.



Western blot - Anti-p40 - DeltaNp63 antibody [EPR17863-47] (ab203826)

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
Negative control: HeLa (PMID: 21631996).

The molecular weight observed is consistent with what has been described in the literature (PMID: 17615180, 26784942).

Exposure time: Lane 37 seconds; Lanes 2-3: 3 minutes.

All lanes:
Western blot - Anti-p40 - DeltaNp63 antibody [EPR17863-47] (ab203826) at 1/1000 dilution

Lane 1:
HaCaT (human skin keratinocyte) whole cell lysate at 40 µg

Lane 2:
A431 (human epidermoid carcinoma epithelial cell) whole cell lysate at 40 µg

Lane 3:
HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate at 40 µg

Secondary

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

Predicted band size: 77 kDa

Observed band size: 75 kDa

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