abcam

ab40658

Anti-p73 antibody [EP436Y]

Anti-p73 antibody [EP436Y] (ab40658) is a rabbit monoclonal antibody detecting p73 in **Western Blot, Flow Cytometry (Intra), IHC-P, ICC/IF**. Suitable for **Human, Mouse**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 60 publications
- Trusted since 2006

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	EP436Y
Purification technique	Affinity purification Protein A
Concentration	1.543 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Mouse
Dilution info	1/100
Notes	Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

Species	Human
Dilution info	1/100
Notes	Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

IP

Not recommended

Species	Mouse, Human
Dilution info	-
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/500 - 1/2000
Notes	-

Species	Human
Dilution info	1/500 - 1/2000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/150 - 1/300
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Target data

See full target information TP73

Function	Participates in the apoptotic response to DNA damage. Isoforms containing the transactivation domain are pro-apoptotic, isoforms lacking the domain are anti-apoptotic and block the function of p53 and transactivating p73 isoforms. May be a tumor suppressor protein. Is an activator of FOXJ1 expression (By similarity). It is an essential factor for the positive regulation of lung ciliated cell differentiation (PubMed:34077761).

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-p73 antibody [EP436Y] (ab40658) 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 samples.

What is the molecular weight of p73?
Anti-p73 [EP436Y] (ab40658) specifically detects a band for p73 (UniProt: O15350) at a molecular weight of 70kDa.

Trusted by the scientific community
Anti-p73 [EP436Y] (ab40658) was first used in a scientific publication in 2006 and has been cited over 60 times in peer-reviewed journals.

Other related products
We have a range of other formats of antibody clone [EP436Y] also available for your convenience: ab40658, Alexa Fluor® 647 - ab197039, HRP - ab197040, Carrier free - ab219594, Alexa Fluor® 594 - ab311699, Alexa Fluor® 568 - ab312974, Alexa Fluor® 555 - ab313183

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 protein p73 also known in scientific literature as p-73 or simply p 73 is a member of the p53 family of transcription factors. Molecular weight of p73 is approximately 80 kDa. It is expressed widely in human tissues with high levels observed in the brain kidneys and heart. Structurally p73 is similar to p53 and shares many functional domains including a DNA-binding domain and an oligomerization domain.
Biological function summary	P73 plays a significant role in regulating cell cycle and apoptosis. It can activate transcription of several genes involved in these processes. p73 does not function alone; it can form complexes with other p53 family members and modulate cellular responses to stress. p73 also contributes to differentiation particularly in neuronal cells where it promotes survival and development.
Pathways	The activity of p73 is involved in important signaling routes such as the DNA damage response and the apoptosis pathway. It interacts with many other proteins including p53 to maintain genomic stability. The pathway connections illustrate that p73 acts as a critical node influencing cell fate and maintaining cellular health.
Associated diseases and disorders	Research links p73 to conditions such as cancer and neurodevelopmental disorders. Abnormal expression or mutation of p73 is observed in various cancers often associated with altered p53 function. In neurodevelopmental disorders deficits in p73 expression can impair brain development and function. Understanding how p73 interacts with p53 in these contexts is important for developing therapeutic strategies.

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

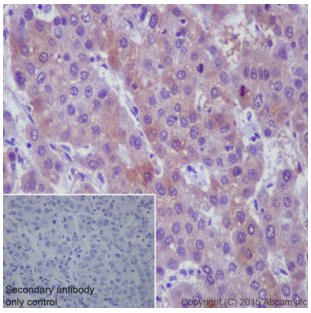
We do not recommend this combination. It is not covered by our product promise.

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.

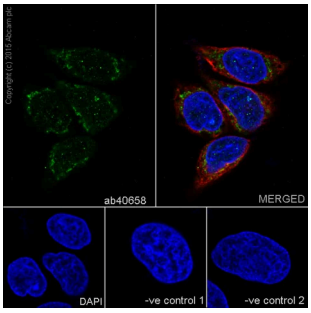
10 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p73 antibody [EP436Y] (ab40658)

P73 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-p73 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human liver carcinoma tissue labelling p73 with purified ab40658 at a dilution of 1/100. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. ab97051, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

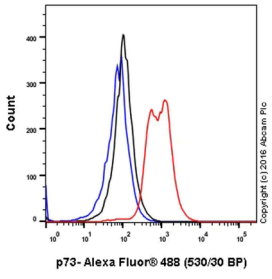


Immunocytochemistry/ Immunofluorescence - Anti-p73 antibody [EP436Y] (ab40658)

P73 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-p73 antibody

Immunocytochemistry/Immunofluorescence analysis of HeLa cells labelling p73 with purified ab40658 at a dilution of 1/300. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain. ab7291, a mouse anti-tubulin (1/1000) and ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000) were also used.
Control 1: primary antibody (1/300) and secondary antibody, ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000).

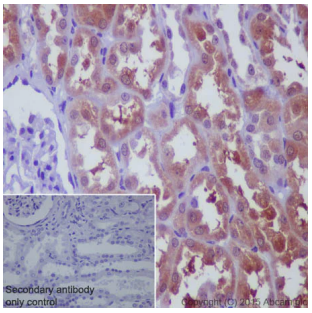
Control 2: ab7291 (1/1000) and secondary antibody, ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000).



Flow Cytometry (Intracellular) - Anti-p73 antibody [EP436Y] (ab40658)

P73 Flow Cytometry (Intracellular) staining using rabbit Anti-p73 antibody

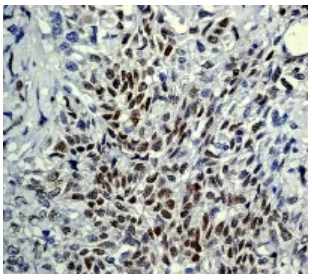
Intracellular Flow Cytometry analysis of 293 (human embryonic kidney) cells labeling p73 with purified ab40658 at 1/120 dilution (10ug/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488) (1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) was used as the unlabeled control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p73 antibody [EP436Y] (ab40658)

P73 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-p73 antibody

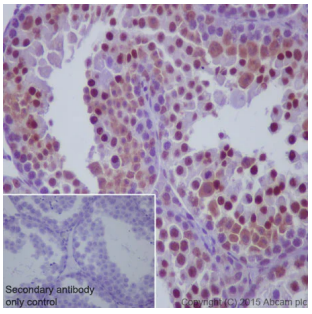
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue labelling p73 with purified ab40658 at a dilution of 1/100. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. ab97051, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p73 antibody [EP436Y] (ab40658)

P73 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-p73 antibody

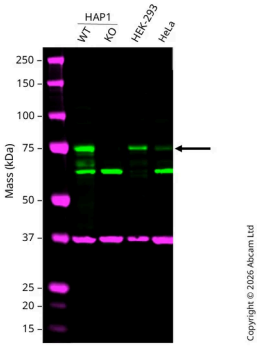
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human urinary bladder carcinoma tissue labelling p73 with unpurified ab40658 at a dilution of 1/100. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p73 antibody [EP436Y] (ab40658)

P73 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-p73 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse testis tissue labelling p73 with purified ab40658 at a dilution of 1/100. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. ab97051, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



Western blot - Anti-p73 antibody [EP436Y] (ab40658)

P73 Western blot staining using rabbit Anti-p73 antibody

Western blot: Anti-p73 antibody [EP436Y] ab40658 staining at 1/1000 dilution, shown in green; Mouse anti GAPDH ab8245 loading control staining at 1/20000 dilution, shown in magenta. A band was observed at 75 kDa in Wild-type HAP1 cell lysates with no signal observed at this size in TP73 knockout HAP1 cell line. To generate this image, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 5% 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 800CW and Goat anti-Mouse 680RD at 1/20,000 dilution.
All lanes:
Western blot - Anti-p73 antibody [EP436Y] (ab40658) at 1/1000 dilution

Lane 1:
Wild-type HAP1 cell lysates at 20 µg

Lane 2:

TP73 knockout HAP1 cell lysates at 20 µg

Lane 3:
HEK-293 cell lysates at 20 µg

Lane 4:
HeLa cell lysates at 20 µg

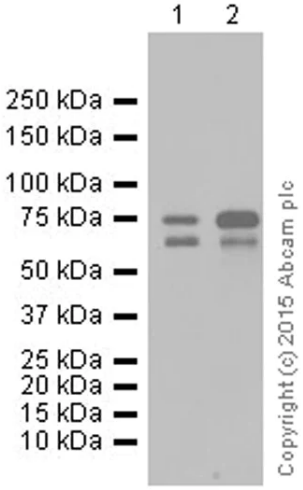
Secondary

All lanes:
Goat anti-Rabbit 800CW & Goat anti-Mouse 680RD at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 69 kDa

Observed band size: 75 kDa



Western blot - Anti-p73 antibody [EP436Y] (ab40658)

P73 Western blot staining using rabbit Anti-p73 antibody

Blocking and dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-p73 antibody [EP436Y] (ab40658) at 1/5000 dilution

Lane 1:
HeLa whole cell lysate at 10 µg

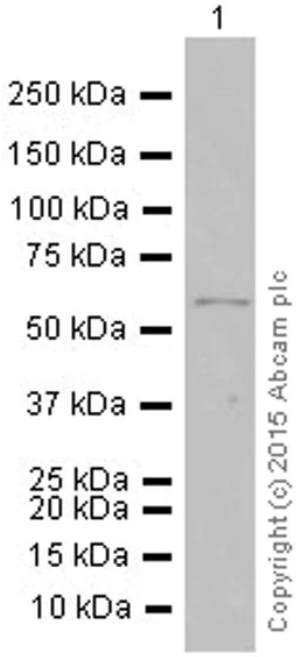
Lane 2:
HEK293 whole cell lysate at 10 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 69 kDa

Observed band size: 60 kDa, 75 kDa



Western blot - Anti-p73 antibody [EP436Y] (ab40658)

Blocking and dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-p73 antibody [EP436Y] (ab40658) at 1/1000 dilution

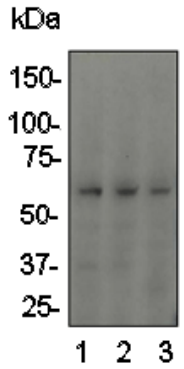
All lanes:
NIH/3T3 whole cell lysate at 10 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 69 kDa

Observed band size: 60 kDa



Western blot - Anti-p73 antibody [EP436Y] (ab40658)

P73 Western blot staining using rabbit Anti-p73 antibody

All lanes:
Western blot - Anti-p73 antibody [EP436Y] (ab40658) at 1/2000 dilution

Lane 1:
HeLa cell lysate at 10 µg

Lane 2:
Jurkat cell lysate at 10 µg

Lane 3:
NIH/3T3 cell lysate at 10 µg

Predicted band size: 69 kDa

Observed band size: 63 kDa

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