abcam

ab110038

Anti-p63 antibody [4E5]

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Synthetic Peptide within Human TP63 aa 650-700. The exact immunogen used to generate this antibody is proprietary information. Database link Q9H3D4
Clone number	4E5
Purification technique	Affinity purification Protein G
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from tissue culture supernatant.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1/100
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Expected

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

Not recommended

Species	Synthetic peptide
Dilution info	-
Notes	-

ELISA

Tested

Species	Synthetic peptide
Dilution info	1/10000
Notes	-

Expected

Species	Human, Mouse, African green monkey, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

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

Species	Mouse
Dilution info	1/500 - 1/2000

Notes	-

Species	African green monkey
Dilution info	1/500 - 1/2000
Notes	-

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

Not recommended

Species	Synthetic peptide
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat, African green monkey, Synthetic peptide
Dilution info	-
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	Blue Ice
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

This product was changed from ascites to supernatant. Lot no's high than GR118984-25 are from Tissue Culture Supernatant

Supplementary info

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

Activity summary	The p63 protein also known as TP63 or KET is a transcription factor that plays a role in the regulation of cell cycle and apoptosis. With a molecular mass of approximately 77 kDa it expresses predominantly in epithelial tissues such as those in the skin breast and prostate. The expression pattern of p63 makes it a useful marker in developmental biology and cancer diagnosis. Antibodies like '4A4' specifically recognize p63 in various assays including immunohistochemistry.
Biological function summary	P63 participates in the control of epithelial cell differentiation and proliferation. It functions as a member of the p53 family which includes p53 and p73. This family forms an important part of the complex regulatory network that maintains genomic stability. Research using methods like p63 staining in immunohistochemistry highlights its critical role in stratified epithelia. The gene encodes several isoforms with different biological activities impacting processes such as cellular senescence and development.
Pathways	P63 integrates into various signaling pathways that influence cellular growth and adherence. It notably impacts the Notch and Wnt pathways both of which are critical for developmental processes and cancer progression. Through these pathways p63 interacts with proteins like β-catenin and Notch receptors facilitating cross-talk that influences cell fate decisions. Its function relates closely to other transcription factors forming feedback loops that reinforce its regulatory impact.
Associated diseases and disorders	P63 shows strong associations with ectodermal dysplasia and different types of cancers like squamous cell carcinoma. Mutations and altered expressions of p63 contribute to these pathologies by disrupting normal cell proliferation and

differentiation. The protein interacts closely with p73 in cancer suggesting a compensatory role when p63 function is compromised. Understanding these connections can guide the development of targeted therapies and improve diagnostic accuracy.

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

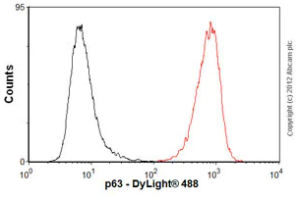
We do not recommend this combination. It is not covered by our product promise.

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.

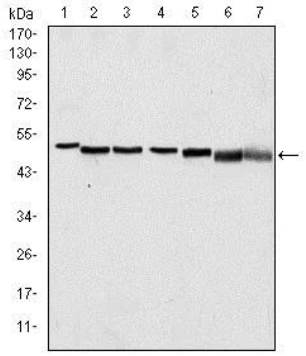
3 product images



Flow Cytometry - Anti-p63 antibody [4E5] (ab110038)

P63 Flow Cytometry staining using mouse Anti-p63 antibody

Overlay histogram showing A431 cells stained with ab110038 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab110038, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in A431 cells fixed with 4% paraformaldehyde (10 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



Western blot - Anti-p63 antibody [4E5] (ab110038)

All lanes:
Western blot - Anti-p63 antibody [4E5] (ab110038) at 1/500 dilution

Lane 1:
A431 cell lysate.

Lane 2:
HeLa cell lysate.

Lane 3:
Jurkat cell lysate.

Lane 4:
THP1 cell lysate.

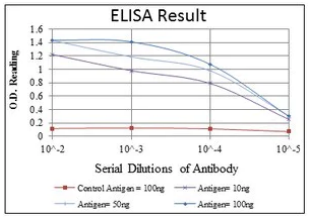
Lane 5:
NIH 3T3 cell lysate.

Lane 6:
COS-7 (African green monkey kidney fibroblast-like cell line) cell lysate.

Lane 7:
PC12 cell lysate.

Predicted band size: 77 kDa

Observed band size: 51 kDa



ELISA - Anti-p63 antibody [4E5] (ab110038)

ab110038 should be used at a proposed dilution of 1/10000 for ELISA.

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