abcam

Product datasheet

Anti-p63 antibody [EPR5701] ab124762

Recombinant RabMAb

★★★★★ 7 Abreviews 24 References 12 Images

Overview

Product name	Anti-p63 antibody [EPR5701]
Description	Rabbit monoclonal [EPR5701] to p63
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, ICC/IF, Flow Cyt
Species reactivity	**Reacts with:** Mouse, Rat, Rabbit, Human
Immunogen	Recombinant fragment within Human p63 aa 1-250. The exact sequence is proprietary. Database link: Q9H3D4
Positive control	WB: Human bladder, kidney and skin lysates; MDA-MB-435, PC3, PC-12 and A431 cell lysates. IHC-P: Human prostate hyperplasia, prostate, cervical carcinoma, tonsil and skeletal muscle tissue. ICC/IF: A431 and primary corneal limbal cells. Flow cyt: A431 cells.
General notes	Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents. This product is a recombinant rabbit monoclonal antibody.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol, 0.05% BSA, 59% PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR5701
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab124762** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★	1/2000. Detects a band of approximately 50-75 kDa (predicted molecular weight: 77 kDa). **For unpurified, use 1/200.**
IHC-P	★★★★★	1/1200. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. **For unpurified, use 1/2500.** See IHC antigen retrival protocols.
ICC/IF	★★★★★	1/300. **For unpurified, use 1/60.**
Flow Cyt		1/1000. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target

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. 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.

Tissue specificity

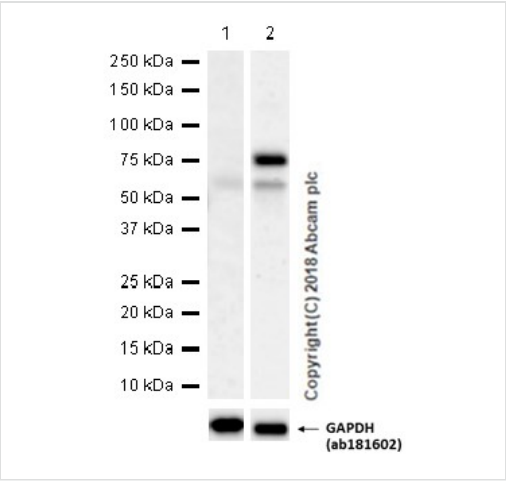
Widely expressed, notably in heart, kidney, placenta, prostate, skeletal muscle, testis and thymus, although the precise isoform varies according to tissue type. Progenitor cell layers of skin, breast, eye and prostate express high levels of DeltaN-type isoforms. Isoform 10 is predominantly expressed in skin squamous cell carcinomas, but not in normal skin tissues.

Involvement in disease

Defects in TP63 are the cause of acro-dermato-ungual-lacrimal-tooth syndrome (ADULT syndrome) [MIM:103285]; a form of ectodermal dysplasia. Ectodermal dysplasias (EDs) constitute a heterogeneous group of developmental disorders affecting tissues of ectodermal origin. EDs are characterized by abnormal development of two or more ectodermal structures such as hair, teeth, nails and sweat glands, with or without any additional clinical sign. Each combination of clinical features represents a different type of ectodermal dysplasia. ADULT syndrome involves ectrodactyly, syndactyly, finger- and toenail dysplasia, hypoplastic breasts and nipples, intensive freckling, lacrimal duct atresia, frontal alopecia, primary hypodontia, and loss of permanent teeth. ADULT differs significantly from EEC3 syndrome by the absence of facial clefting.
Defects in TP63 are the cause of ankyloblepharon-ectodermal defects-cleft lip/palate (AEC) [MIM:106260]. AEC is an autosomal dominant condition characterized by congenital ectodermal dysplasia with coarse, wiry, sparse hair, dystrophic nails, slight hypohidrosis, scalp infections, ankyloblepharon filiform adnatum, maxillary hypoplasia, hypodontia and cleft lip/palate.
Defects in TP63 are the cause of ectrodactyly-ectodermal dysplasia-cleft lip/palate syndrome type 3 (EEC3) [MIM:604292]. EEC3 is an autosomal dominant syndrome characterized by

	ectrodactyly of hands and feet, ectodermal dysplasia and facial clefting. Defects in TP63 are the cause of split-hand/foot malformation type 4 (SHFM4) [MIM:605289]. Split-hand/split-foot malformation is a limb malformation involving the central rays of the autopod and presenting with syndactyly, median clefts of the hands and feet, and aplasia and/or hypoplasia of the phalanges, metacarpals, and metatarsals. There is restricted overlap between the mutational spectra of EEC3 and SHFM4. Defects in TP63 are the cause of limb-mammary syndrome (LMS) [MIM:603543]. LMS is characterized by ectrodactyly, cleft palate and mammary-gland abnormalities. Note=Defects in TP63 are a cause of cervical, colon, head and neck, lung and ovarian cancers. Defects in TP63 are a cause of ectodermal dysplasia Rapp-Hodgkin type (EDRH) [MIM:129400]; also called Rapp-Hodgkin syndrome or anhidrotic ectodermal dysplasia with cleft lip/palate. Ectodermal dysplasia defines a heterogeneous group of disorders due to abnormal development of two or more ectodermal structures. EDRH is characterized by the combination of anhidrotic ectodermal dysplasia, cleft lip, and cleft palate. The clinical syndrome is comprised of a characteristic facies (narrow nose and small mouth), wiry, slow-growing, and uncombable hair, sparse eyelashes and eyebrows, obstructed lacrimal puncta/epiphora, bilateral stenosis of external auditory canals, microsomia, hypodontia, cone-shaped incisors, enamel hypoplasia, dystrophic nails, and cleft lip/cleft palate. Defects in TP63 are the cause of non-syndromic orofacial cleft type 8 (OFC8) [MIM:129400]. Non-syndromic orofacial cleft is a common birth defect consisting of cleft lips with or without cleft palate. Cleft lips are associated with cleft palate in two-third of cases. A cleft lip can occur on one or both sides and range in severity from a simple notch in the upper lip to a complete opening in the lip extending into the floor of the nostril and involving the upper gum.
Sequence similarities	Belongs to the p53 family. Contains 1 SAM (sterile alpha motif) domain.
Domain	The transactivation inhibitory domain (TID) can interact with, and inhibit the activity of the N-terminal transcriptional activation domain of TA*-type isoforms.
Post-translational modifications	May be sumoylated. Ubiquitinated. Polyubiquitination involves WWP1 and leads to proteasomal degradation of this protein.
Cellular localization	Nucleus.

Images



Western blot - Anti-p63 antibody [EPR5701] (ab124762)

All lanes : Anti-p63 antibody [EPR5701] (ab124762) at 1/1000 dilution

Lane 1 : MDA-MB-435S (Human mammary gland ductal carcinoma melanocyte) whole cell lysate prepared using RIPA lysis method with 5% NFDM/TBST
Lane 2 : MDA-MB-435S (Human mammary gland ductal carcinoma melanocyte) whole cell lysate prepared using 1% SDS hot lysis method with 5% NFDM/TBST

Lysates/proteins at 20 µg per lane.

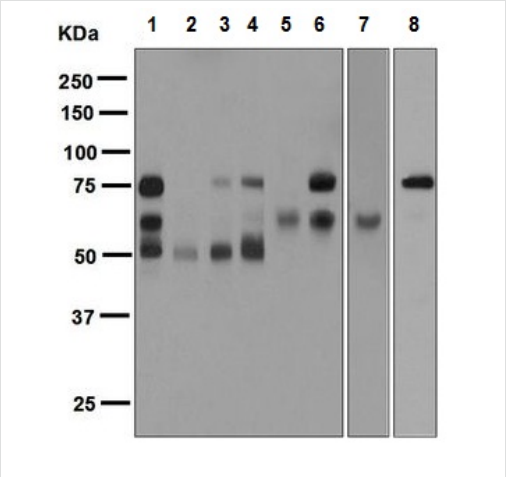
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 77 kDa
Observed band size: 55,75 kDa
why is the actual band size different from the predicted?

Exposure time: 3 minutes

The different result in MDA-MB-435S is due to the lysate preparation method. If p63 variants are not detected in some samples, please try the 1% SDS hot lysis method.

For lysate preparation protocol, please refer to the protocol book in the protocol section or here (downloadable copy).



Western blot - Anti-p63 antibody [EPR5701] (ab124762)

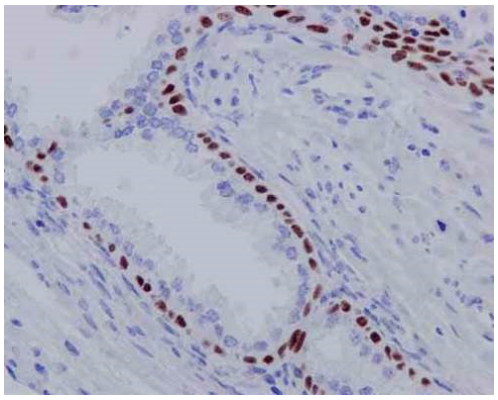
All lanes : Anti-p63 antibody [EPR5701] (ab124762) at 1/1000 dilution (unpurified)

Lane 1 : Human bladder lysate
Lane 2 : Human kidney lysate
Lane 3 : Human skin lysate
Lane 4 : Human tonsil lysate
Lane 5 : PC 3 cell lysate
Lane 6 : MDA-MB-435 cell lysate
Lane 7 : PC12 cell lysate
Lane 8 : A431 cell lysate

Lysates/proteins at 10 µg per lane.

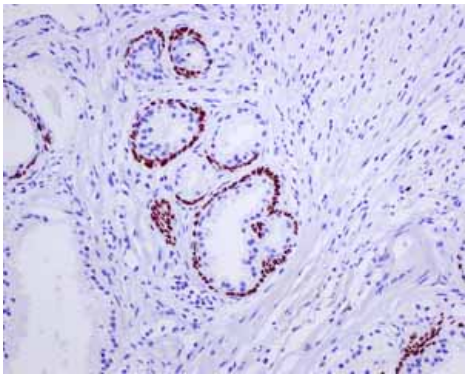
Secondary
All lanes : Goat anti-Rabbit HRP at 1/2000 dilution

Predicted band size: 77 kDa



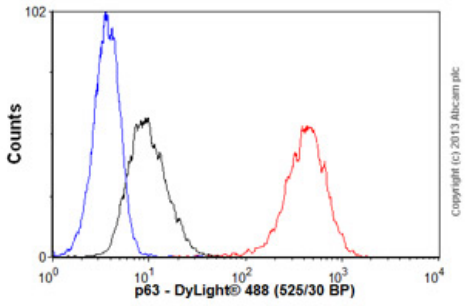
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p63 antibody [EPR5701] (ab124762)

Immunohistochemical staining of paraffin embedded human prostate with purified ab124762 at a working dilution of 1 in 12000. The secondary antibody used is a HRP polymer for rabbit IgG. The sample is counter-stained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0.



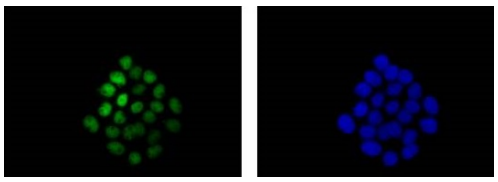
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p63 antibody [EPR5701] (ab124762)

Unpurified ab124762 showing positive staining in prostate hyperplasia tissue.



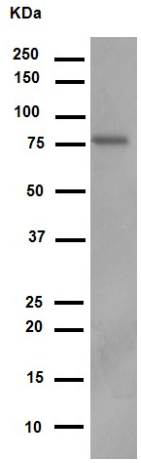
Flow Cytometry - Anti-p63 antibody [EPR5701] (ab124762)

Overlay histogram showing A431 cells stained with unpurified ab124762 (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 (unpurified ab124762, 1/1000 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (ab96899) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (0.1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.



Immunocytochemistry/ Immunofluorescence - Anti-p63 antibody [EPR5701] (ab124762)

Immunofluorescent staining of A431 cells (fixed with 4% PFA and permeablized with TritonX 100) with purified ab124762 at a dilution of 1/60. An Alexa Fluor® 488 goat anti-rabbit antibody was used as the secondary at a dilution of 1/200. The panel on the right shows the DAPI counter-staining.



Western blot - Anti-p63 antibody [EPR5701] (ab124762)

Anti-p63 antibody [EPR5701] (ab124762) at 1/1200 dilution (purified) + MDA-MB-435 cell lysate at 10 µg

Secondary

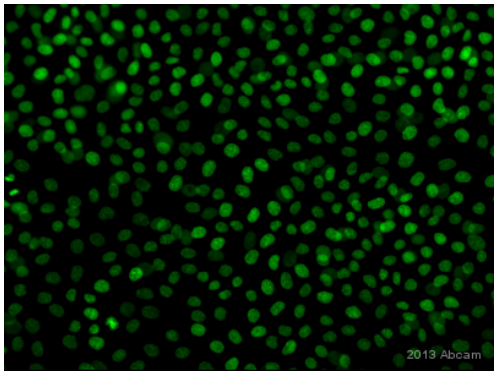
HRP goat anti-rabbit (H+L) at 1/1000 dilution

Predicted band size: 77 kDa

Observed band size: 75 kDa why is the actual band size different from the predicted?

Blocking buffer: 5% NFDM/TBST

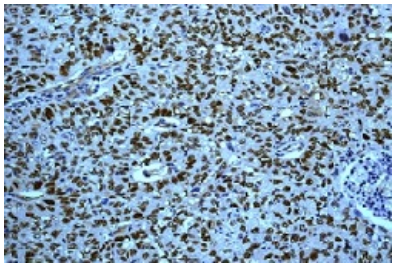
Dilution buffer: 5% NFDM/TBST



Immunocytochemistry/ Immunofluorescence - Anti-p63 antibody [EPR5701] (ab124762)

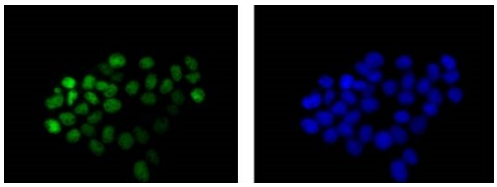
This image is courtesy of an Abreview submitted by Manuel Chacon

Unpurified ab124762 staining p63 in Human corneal limbal epithelial cells (primary culture) by ICC/IF (immunocytochemistry/immunofluorescence). Cells were fixed with methanol and permeabilized with 0.3% Triton X-100 for 5 minutes. Samples were incubated with primary antibody (1/100 in PBS + 10% Goat serum) for 18 hours at 4°C. An Alexa Fluor® 488-conjugated Goat anti-rabbit IgG polyclonal (1/500) was used as the secondary antibody.



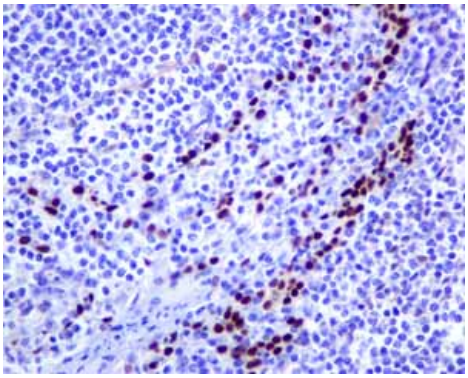
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p63 antibody [EPR5701] (ab124762)

Immunohistochemical staining of p63 in paraffin-embedded human cervical carcinoma tissue with unpurified ab124762, at a 1/500 dilution.



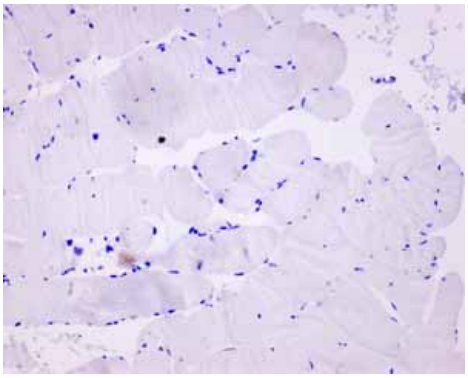
Immunocytochemistry/ Immunofluorescence - Anti-p63 antibody [EPR5701] (ab124762)

Immunofluorescent staining of A431 cells (fixed with 4% PFA and permeablized with TritonX 100) with unpurified ab124762 at a dilution of 1/60. An Alexa Fluor® 488 goat anti-rabbit antibody was used as the secondary at a dilution of 1/200. The panel on the right shows the DAPI counter-staining.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p63 antibody [EPR5701] (ab124762)

Unpurified ab124762 showing positive staining in normal tonsil tissue.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p63 antibody [EPR5701] (ab124762)

Unpurified ab124762 showing negative staining in skeletal muscle tissue.

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors