abcam

Product datasheet

Anti-p63 antibody [Y289] ab32353

Recombinant RabMAb

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Overview

Product name Anti-p63 antibody [Y289]

Description Rabbit monoclonal [Y289] to p63

Host species Rabbit

Specificity This antibody should detect both isoforms 2,9,10,11 and 12 of p63.

Tested applications Suitable for: WB, ICC/IF, Flow Cyt (Intra), IHC-P

Unsuitable for: IP

Species reactivity Reacts with: Human

Immunogen Synthetic peptide within Human p63 aa 650 to the C-terminus (C terminal). The exact sequence is

proprietary.

Epitope ab32353 reacts with an epitope located in the C terminal region of p63.

Positive control WB: A431 cell lysate. IHC-P: Human skin tissue. ICC/IF: A431 cells.

General notes 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 production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with

these species. Please contact us for more information.

Properties

Form Liquid

Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Storage instructions

Avoid freeze / thaw cycle.

Storage buffer

Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

Purity Protein A purified

Clonality Monoclonal

Clone number Y289
Isotype IgG

Applications

The Abpromise quarantee

Our Abpromise quarantee covers the use of ab32353 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		1/10000. Predicted molecular weight: 77 kDa. For unpurified use at 1/4000.
ICC/IF	****(1)	1/100. For unpurified use at 1/250 - 1/500.
Flow Cyt (Intra)		Use at an assay dependent concentration.
IHC-P		1/50. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. See IHC antigen retrieval protocols .

Application notes

Is unsuitable for IP.

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

May be sumovlated.

modifications

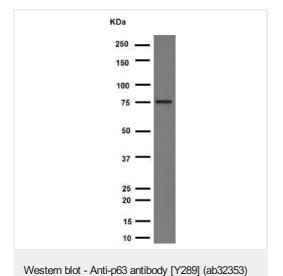
Ubiquitinated. Polyubiquitination involves WWP1 and leads to proteasomal degradation of this

protein.

Cellular localization

Nucleus.

Images



Anti-p63 antibody [Y289] (ab32353) at 1/4000 dilution (unpurified) + A431 cell lysate at 10 μg

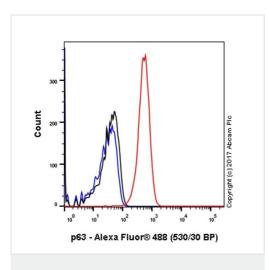
Secondary

Peroxidase-conjugated goat anti-rabbit lgG (H+L) at 1/1000 dilution

Predicted band size: 77 kDa **Observed band size:** 73 kDa

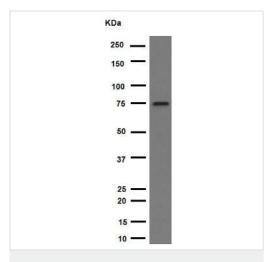
Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.



Flow Cytometry (Intracellular) - Anti-p63 antibody [Y289] (ab32353)

Intracellular Flow Cytometry analysis of A431 (human epidermoid carcinoma) cells labeling p63 with purified ab32353at 1/500 dilution (1ug/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit lgG (Alexa Fluorr® 488) (1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal lgG (Black) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) were used as the unlabeled control.



Western blot - Anti-p63 antibody [Y289] (ab32353)

Anti-p63 antibody [Y289] (ab32353) at 1/10000 dilution (purified) + A431 cell lysate at 10 μg

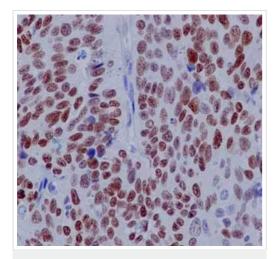
Secondary

Peroxidase-conjugated goat anti-rabbit lgG (H+L) at 1/1000 dilution

Predicted band size: 77 kDa **Observed band size:** 73 kDa

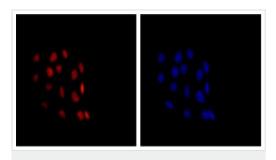
Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.



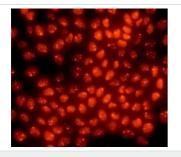
Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-p63 antibody [Y289] (ab32353)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human hepatocellular skin tissue labelling p63 with purified ab32353 at 1/50. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. A prediluted HRP-polymer conjugated anti-rabbit lgG was used as the secondary antibody. Counterstained with Hematoxylin.



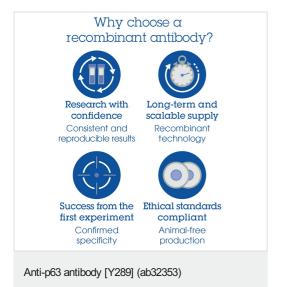
Immunocytochemistry/ Immunofluorescence - Antip63 antibody [Y289] (ab32353)

Immunocytochemsitry/Immunofluorescence analysis of A431 cells labelling p63 (red) with purified ab32353 at 1/200. Cells were fixed with 4% paraformaldehyde. An Alexa Fluor $^{\circledR}$ 555-conjugated goat anti-rabbit lgG (1/200) was used as the secondary antibody. Counterstained with DAPI (blue).



Immunocytochemistry/ Immunofluorescence - Antip63 antibody [Y289] (ab32353)

Immunocytochemistry/Immunofluorescence analysis of A431 cells labelling p63 with unpurified ab32353 at 1/250 dilution.



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