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p63α Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1528a

Product Information

Application	WB, IHC, E
Primary Accession	Q9H3D4
Reactivity	Human, Mouse, Rat, Monkey
Host	Mouse
Clonality	Monoclonal
Clone Names	4E5
Isotype	IgG1
Calculated MW	76785
Description	The p63 gene is a homologue of the p53 tumor suppressor gene. Like p53, p63 contains a transactivation (TA) domain induce the transcription of target genes, a DNA binding domain, and an oligomerization domain (OD), used to form tetramers. In contrast to p53, the p63 gene encodes for at least six major isotypes. Three isotypes (TAp63α, TAp63β, and TAp63γ) contain the transactivating (TA) domain and are able to transactivate p53 report genes and induce apoptosis. In contrast, the other three isotypes (ΔNp63α, ΔNp63β, ΔNp63γ) are transcribed from an internal promoter localized within intron3, lack the TA domain, and act as dominant-negatives to suppress transactivation by both p53 and TAp63 isotypes. p63 is highly expressed in the basal cells of the epithelium significant for proper limb outgrowth and morphogenesis.4 In differentiating tissues, p63 is crucial for maintaining the stem cell identity of the basal cells, and is indispensable for correct development of the skin as well as the limb. p63-deficient mice lack all squamous epithelia and their derivatives, including hair, whiskers, teeth, as well as mammary, lacrimal, and salivary glands.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.
Immunogen	Synthesized peptide of human p63α.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	8626
Other Names	Tumor protein 63, p63, Chronic ulcerative stomatitis protein, CUSP, Keratinocyte transcription factor KET, Transformation-related protein 63, TP63, Tumor protein p73-like, p73L, p40, p51, TP63, KET, P63, P73H, P73L,

	TP73L
Dilution	WB~~1/500 - 1/2000 IHC~~1/500 - 1/2000 E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	p63α Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TP63
Synonyms	KET, P63, P73H, P73L, TP73L
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. Binds to an upstream regulatory region of the DSG1 gene and promotes transcription (PubMed:24594668).
Cellular Location	Nucleus
Tissue Location	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

References

1. Cancer Res. 2008 Jul 1;68(13):5122-31. 2. Eur J Med Genet. 2008 Sep-Oct;51(5):497-500.

Images

Figure 1: Western blot analysis using p63α mouse mAb against A431 (1), Hela (2), Jurkat (3), THP-1 (4), NIH/3T3 (5), Cos7 (6) and PC-12 (7) cell lysate.

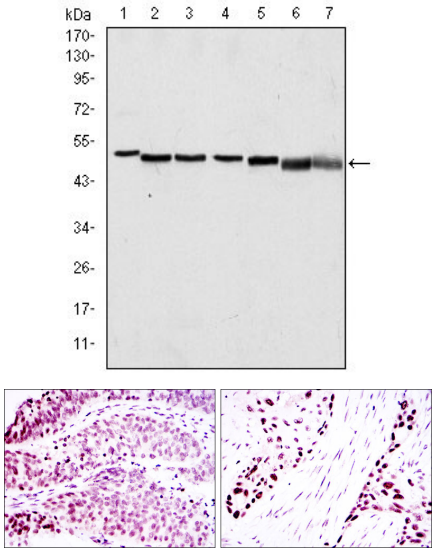


Figure 2: Immunohistochemical analysis of paraffin-embedded ovarian cancer (left) and lung cancer (right) using p63α mouse mAb with DAB staining.

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