

**p63 $\alpha$  Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1528a**

**Specification**

**p63 $\alpha$  Antibody - Product Information**

Application	<b>E, WB, IHC</b>
Primary Accession	<a href="#">O9H3D4</a>
Reactivity	<b>Human, Mouse, Rat, Monkey</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Isotype	<b>IgG1</b>
Calculated MW	<b>51kDa KDa</b>

**Description**

The p63 gene is a homologue of the p53 tumor suppressor gene. Like p53, p63 contains a transactivating (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 isoforms. Three isoforms (TAp63 $\alpha$ , TAp63 $\beta$ , and TAp63 $\gamma$ ) contain the transactivating (TA) domain and are able to transactivate p53 report genes and induce apoptosis. In contrast, the other three isoforms ( $\Delta$ Np63 $\alpha$ ,  $\Delta$ Np63 $\beta$ ,  $\Delta$ Np63 $\gamma$ ) 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 isoforms. p63 is highly expressed in the basal cells of the epithelium significant for proper limb outgrowth and morphogenesis.<sup>4</sup> 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  $\Delta$ N-type isoforms. Isoform 10 is predominantly expressed in skin squamous cell carcinomas, but not in normal skin tissues.

**Immunogen**

Synthesized peptide of human p63 $\alpha$ . <br />

**Formulation**

Ascitic fluid containing 0.03% sodium azide.

**p63 $\alpha$  Antibody - 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**

E~~1/10000

WB~~1/500 - 1/2000

IHC~~1/500 - 1/2000

### 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

p63 $\alpha$  Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## p63 $\alpha$ Antibody - 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.

### 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

## p63 $\alpha$ Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

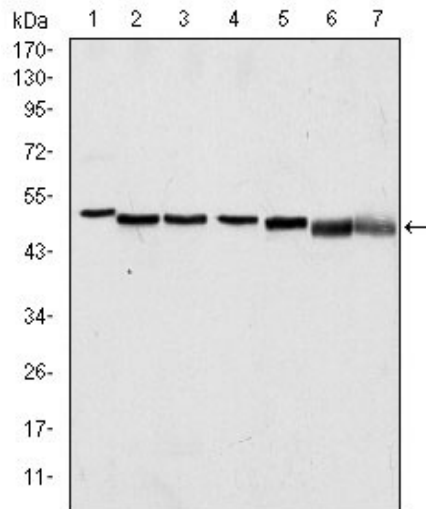
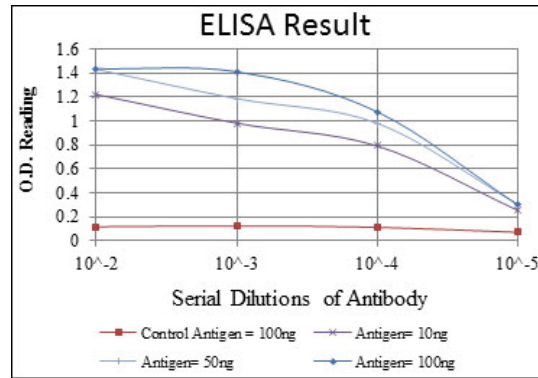


Figure 1: Western blot analysis using p63α mouse mAb against A431 (1), Hela (2), Jurkat (3), THP-1 (4), NIH/3T3 (5), Cos7 (6) and PC-12 (7) cell lysate.

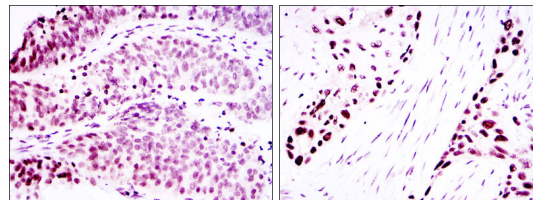


Figure 2: Immunohistochemical analysis of paraffin-embedded ovarian cancer (left) and lung cancer (right) using p63α mouse mAb with DAB staining.

### p63α Antibody - References

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