

PRODUCT INFORMATION

Product name : TP63 antibody

Product type : Primary antibodies

Description : Mouse monoclonal to TP63

Immunogen : 1 synthetic peptide (human) conjugated to KLH

Reacts with : Hu, Ms

Tested applications : ELISA, WB & IF

GENE INFORMATION

Gene Symbol : TP63

Gene Name : tumor protein p63

Ensembl ID : ENSG00000073282

Entrez GeneID : 8626

GenBank Accession number : AB010153

Swiss-Prot : Q9H3D4

Molecular weight : 44.7, 46.6, 51.4, 55.7, 56.8, 57.6, 62.4, 65.3, 65.8, 67.8, 76.3 & 76.8, kDa.

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.

Expected subcellular localization : Nucleus.

Expected 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.

Summary : This gene encodes a member of the p53 family of transcription factors. An animal model, p63 ^{-/-} mice, has been useful in defining the role this protein plays in the development and maintenance of stratified epithelial tissues. p63 ^{-/-} mice have several developmental defects which include the lack of limbs and other tissues, such as teeth and mammary glands, which develop as a result of interactions between mesenchyme and epithelium. Mutations in this gene are associated with ectodermal dysplasia, and cleft lip/palate syndrome 3 (EEC3); split-hand/foot malformation 4 (SHFM4); ankyloblepharon-ectodermal defects-cleft lip/palate; ADULT syndrome (acro-dermato-ungual-lacrima-tooth); limb-mammary syndrome; Rap-Hodgkin syndrome (RHS); and orofacial cleft 8. Both alternative splicing and the use of alternative promoters results in multiple transcript variants encoding different proteins. Many transcripts encoding different proteins have been reported but the biological validity and the full-length nature of these variants have not been determined. [provided by RefSeq, Jul 2008].

APPLICATION NOTE

Recommended dilution :

- **ELISA:** Antibody specificity was verified by direct ELISA against the 1 immunogen peptide. A titer of 33000 has been determined. Appropriate specificity controls were run.
- **WB:** Dilution 1/5000
- **IF:** Dilution 1/50

Optimal dilutions/concentration should be determined by the end user.

Raised in : Mouse

Clonality : Monoclonal

Isotype : IgG

Purity : Purified Antibody

Concentration: 2mg/ml

Storage buffer : Containing a final concentration of PBS/glycerol (V/V), 0.1% BSA and 0.01% Thimerosal.

Form : Liquid

Storage instruction : Store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

WESTERN BLOT ON RECOMBINANT PROTEIN

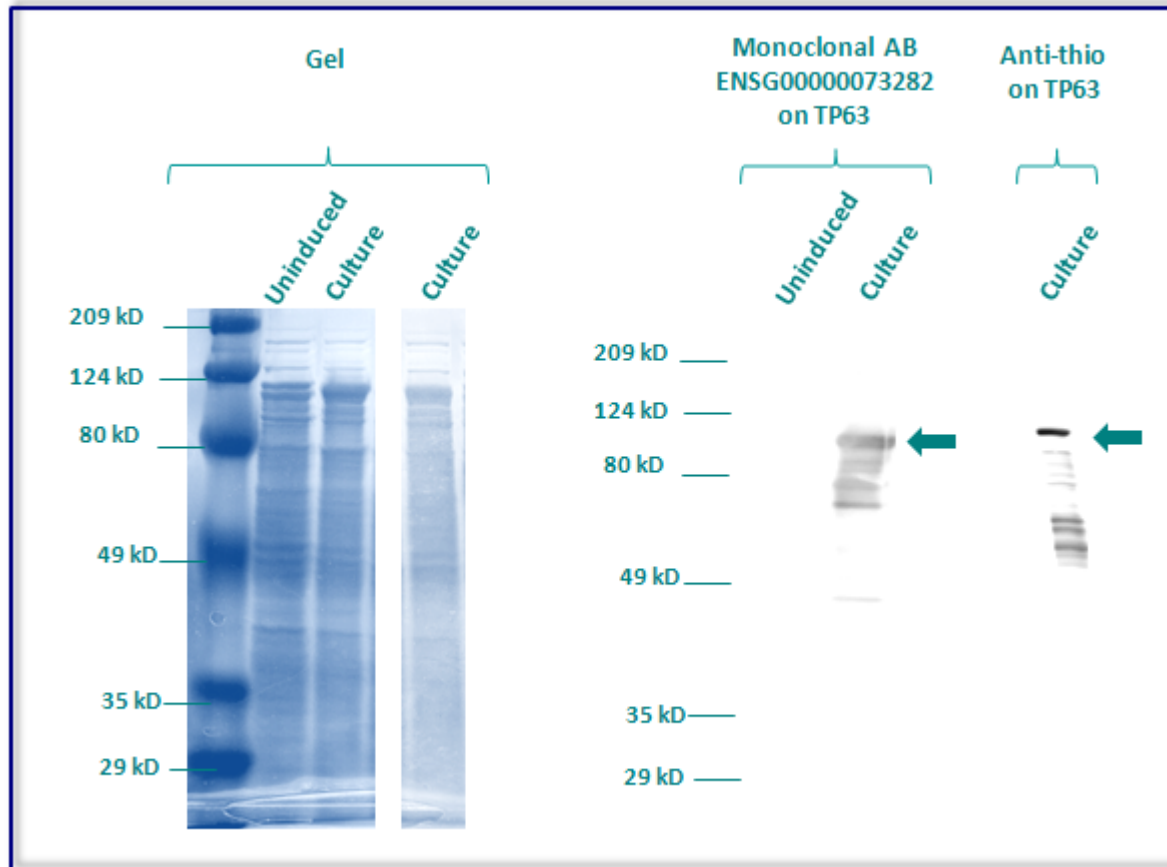
The monoclonal purified antibody ENSG00000073282 has tested at 1/5000 on uninduced (negative control) and induced culture of E.coli (one shot Top10 competent cells).

An anti-thio has been tested at 1/5000 on induced culture of E.coli (one shot Top10 competent cells) as a positive control.

Clone : 3F2B8D11, **Isotype :** G1; M; kappa

Plasmid name : pBAD-DEST49.

Molecular weight of TP63 : 91kDa (77kDa + another 14kDa for the tag).



Gel concentration: 10%

Blocking: in 5% non-fat milk-PBST solution

1st Antibody: The antibodies are diluted in blocking buffer.

- Dilute the purified antibody ENSG00000073282 at 1:5000
- Dilute the anti-thio at 1:5000

60 minutes of incubation

2nd Antibody: The antibody is diluted in blocking buffer.

- Dilute the anti-Mouse IgG HRP conjugated at 1/10000
- 60 minutes of incubation

IMMUNOFLUORESCENCE ANALYSIS

Immunofluorescence analysis of Tumor protein 63 (TP63) expression in 6 cells lines (HELA, 293T/17, SAOS-2, SH-SY5Y, Skin 3,44). The monoclonal antibody ENSG00000073282 has been tested at 1/50.

Red staining : cytoskeleton (microtubules/ α -tubuline)

Blue staining : nucleus (Hoechst)

Green staining : anti- TP63 antibody (purified)

Expected subcellular location : Nucleus

Expected 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

