

Product Specification Sheet

p73α (p73α; Antibody #2)

Cat. P73A12-S	Rabbit Anti-Human P73α Antiserum #2	SIZE: 100 ul
Cat. P73A12-A	Rabbit Anti-Human p73α Ig G # 2 (affinity pure)	SIZE: 100 ug
Cat. P73A12-P	Human p73α control/blocking peptide # 2	SIZE: 100 ug

Human **p73α** is the first known structural and functional homolog of one of the most studied tumor protein, p53 (1). Human p73 gene encodes two distinct polypeptides: The p73 long form (human 636 AA, termed p73α; mouse 590 aa) and the short form (499 AA; termed p73β). The short form arises through alternative splicing of the p73. With the exception of C-terminal 5 AA, p73β is identical to p73α. Both p73α and p73β transcripts were detected all human tissues. The endogenous p73α protein has also been detected in cell extracts of HT-29, IMR-32, and SK-N-SH cells. Other cell lines, SK-N-MC SK-N-AS displayed significantly reduced levels of p73α protein (1). The C-terminal domain (364-393) of p53 and p73 are quite distinct. p73 has been mapped to human chromosome 1p36, a region that is frequently deleted in a variety of human cancers including neuroblastoma, colon cancer, melanoma, and breast cancer.

FUNCTION: Participates in the apoptotic response to DNA damage. When overproduced, activates transcription from p53-responsive promoters and induces apoptosis. May be a tumor suppressor protein.

SUBCELLULAR LOCATION: Nucleus.

SIMILARITY: Belongs to the p53 family.

Protein name Tumor protein p73

Synonyms p53-like transcription factor
p53-related protein

Gene name Name: TP73; Synonyms: P73

Source of Antigen and Antibodies

Antigen	22-aa peptide of Human p73α; protein accession #O15350, refs 1) (designated P73A12-P, control peptide).conjugated to KLH; Epitope location ~ C-terminus
Ab Host/type	Rabbit, polyclonal Aff pure IgG (cat #P73A12-A) purified over the antigen column
2-ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available
-ve control	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)
100ul solution lyophilized powder
Supplied in Buffer: 0.05% azide
Reconstitute powder in 100 ul PBS

Affinity pure IgG
100 ug/100ul solution lyophilized powder
Supplied in **Buffer:** PBS+0.1% BSA
Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide

100 ug/100 ul solution lyophilized powder
Supplied in Buffer: PBS pH 7.5,
Reconstitute powder in PBS at 1 mg/ml.

Storage

Short-term: unopened, undiluted liquid vials at 20°C and powder at 4°C or -20°C..

Long-term: at -20°C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20°C or below.

Shipping: 4°C for solutions and room temp for powder

Recommended Usage

Western Blotting (1:1K-5K for neat serum and 1-10 ug/ml for affinity pure using Chemiluminescence technique) (1).

ELISA (1:10K-1:100K; using 50-100 ng of control peptide/well).

Histochemistry & Immunofluorescence: Not tested. We recommend the use of affinity purified antibody at 2-20 ug/ml.

Specificity & Cross-reactivity

P73A12-P is 100% conserved in monkey, 86% in mouse, and 54% in non-mammalian p73 from *Barbus barbus*. It has no significant homology with p53. Antibody crossreactivity in various species is not established. Control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity

General References: Kaghad, M et al (1997) Cell 90, 809-819; 2. Oren, M (1997) Cell 90, 829-832; Herranz M et al (1999) Cancer Res. 59, 2068-2071; Yang A et al (2000) Nature 404, 99-103

*This product is for in vitro research use only.

Related material available from ADI

Anti-p53, Phosphorylated, acetylated, p63, p73

Western Blot recycling kit (Use the same blot to probe with multiple antibodies p53, p63, p73, etc.) **recycle blot at room temp in 5-10 min;** No mercaptoethanol or heating required).

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