

Product Specification Sheet

p53, Acetylated (K320) antibody

Cat. P53A320-S Rabbit Anti-Human p53, Lys320-acetylated **SIZE:** 100 ul

Cat. P53A320-P Human p53, Lys320-acetylated control peptide **SIZE:** 100 ug

p53, the most frequent target of genetic alterations in human cancer, is one of the most widely studied tumor suppressor gene. The most important activities of p53 are its cellular growth arrest and induction of programmed cell death (apoptosis). Human p53 is a single polypeptide chain of 393 AA. It has three well-defined functional domains: An N-terminal acidic transactivation domain (TAD), a central DNA-binding domain (DBD), and a C-terminal homo-oligomerization domain (OD). All three domains are important for interaction with target genes. A great majority of tumor-associated missense mutations occur within the DBD and the mutant protein fails to regulate p53 target genes.

Posttranslational modifications of p53 (**phosphorylation and acetylation**) have been implicated in its physiological role. p53 has at least 4 phosphorylation sites at the N-terminus with Ser15 as an important site in response to DNA damage and a target of the ATM and DNA PK proteins. There are three potential sites within the C-terminus of p53 that may affect its DNA-binding ability. p53 also serve as a substrate for various histone acetylases to enhance its transcriptional activity.

Source of Antigen and Antibodies

Antigen	A peptide (designated P53A320-P, control peptide) surrounding the human p53, acetylated at Lys320 , was coupled to KLH; Lysine320 is acetylated by PCAF
Ab Host/type	Rabbit, Polyclonal antiserum # P53A320-S
2-Ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
-ve control IgG	Cat # 20009-1, Rabbit (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

Form & Storage of Antibodies/Peptide Control

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

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 -20OC and powder at 4oC or -20oC..

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

Stability: 6-12 months at -20oC or below.

Shipping: 4oC for solutions and room temp for powder

Recommended Usage

Western Blotting ~ 1:500-1:2000 using Chemiluminescence technique). We recommend using recombinant or purified p53 that is acetylated by PCAF in an in vitro assay only. It may not be suitable for detecting endogenous acetylated p53.

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

Specificity & Cross-reactivity

P53A320 antibody **recognizes only p53 acetylated at K320 residue**. It does not react with non-acetylated p53 or unrelated proteins. It recognizes recombinant mouse and rat p53 as well. No crossreactivity is seen with p63 or p73. 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 (see detailed protocol see detailed protocol at the web site.).

General References:

Liu et al (1999) Mol. Cell. Biol. 19, 1202; Yang A et al (1998) Mol Cell 2, 305-316; Kaghad, M et al (1997) Cell 90, 809-819.

*This product is for in vitro research use only.

Related material available from ADI

Anti-p53, p63, p73; Survivin, Klotho, Aib1

Recycle blot at room temp in 5-10 min; No mercaptoethanol or heating required).

P53A320-S-P

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