

Product Specification Sheet

Monoclonal p53, phosphospecific (Ser392) Antibodies

Cat. P53S392-M Mouse Monoclonal Anti-Human p53, phospho-Ser392, affinity pure **SIZE:** 100 ug
FORM: Soln Lyophilized

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

A peptide surrounding the human p53, phosphorylated at **Ser392**, was coupled to KLH and injected into **mice** to generate monoclonal. A clone designated P53S392 secreting IgG1 antibody reacting specifically with p53 phosphorylated at Ser392, was expanded as ascites and antibody purified over phospho-peptide affinity column.

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG

100 ug/100ul 50 ug/50 ul
solution lyophilized powder
Buffer: 100 mM Tris, pH 7.5, 0.2% BSA
contains 0.05% sodium azide
Reconstitute in the original vol. of water

Storage

Short-term: unopened, undiluted vials for less than a week at 4oC.

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 ~ 1-2 ug/ml or less for affinity pure using Chemiluminescence technique). **Do not use casein for blocking or in any buffers.**

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

Specificity & Cross-reactivity

P53S392-M antibody recognizes **only p53 phosphorylated at Ser392 residue**. It does not react with non-phosphorylated p53 or unrelated phospho-proteins. It recognizes mouse p53 as well. No crossreactivity is seen with p63 or p73. Antibody crossreactivity in various species is not established.

General References:

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

Western Blot recycling kit (Use the same blot to probe with multiple antibodies UCP1 and UCP2, UCP3, etc.) **recycle blot at room temp in 5-10 min;** No mercaptoethanol or heating required).

P53S392-M (rev.40203S)