

# Phospho-P53(S9) Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP3206a

43653

# **Specification**

#### Phospho-P53(S9) Antibody - Product Information

Application IF, WB, DB,E
Primary Accession P04637
Reactivity Human
Host Rabbit
Clonality Polyclonal
Isotype Rabbit Ig

Phospho-P53(S9) Antibody - Additional Information

## **Gene ID 7157**

Calculated MW

## **Other Names**

Cellular tumor antigen p53, Antigen NY-CO-13, Phosphoprotein p53, Tumor suppressor p53, TP53, P53

# Target/Specificity

This P53 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S9 of human P53.

#### **Dilution**

IF~~1:10~50 WB~~1:1000 DB~~1:500

#### **Format**

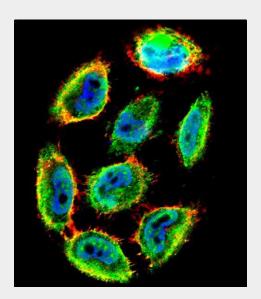
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

# **Storage**

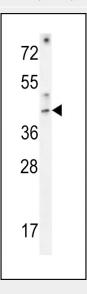
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

# **Precautions**

Phospho-P53(S9) Antibody is for research use only and not for use in diagnostic or



Confocal immunofluorescent analysis of Phospho-P53-S9 Antibody(Cat#AP3206a) with A2058 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red).DAPI was used to stain the cell nuclear (blue).



Western blot analysis of Phospho-P53-S9 (Cat. #AP3206a) in HL60(left) and Ramos (right) cell line lysate.



therapeutic procedures.

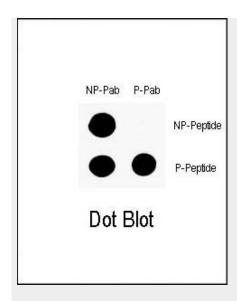
Phospho-P53(S9) Antibody - Protein Information

Name TP53

Synonyms P53

#### **Function**

Acts as a tumor suppressor in many tumor types; induces growth arrest or apoptosis depending on the physiological circumstances and cell type. Involved in cell cycle regulation as a trans-activator that acts to negatively regulate cell division by controlling a set of genes required for this process. One of the activated genes is an inhibitor of cyclin-dependent kinases. Apoptosis induction seems to be mediated either by stimulation of BAX and FAS antigen expression, or by repression of Bcl-2 expression. Its pro-apoptotic activity is activated via its interaction with PPP1R13B/ASPP1 or TP53BP2/ASPP2 (PubMed:<a href="http://www.uniprot.org/c itations/12524540" target="\_blank">12524540</a>). However, this activity is inhibited when the interaction with PPP1R13B/ASPP1 or TP53BP2/ASPP2 is displaced by PPP1R13L/iASPP (PubMed:<a href="http://w ww.uniprot.org/citations/12524540" target=" blank">12524540</a>). In cooperation with mitochondrial PPIF is involved in activating oxidative stress-induced necrosis; the function is largely independent of transcription. Induces the transcription of long intergenic non-coding RNA p21 (lincRNA-p21) and lincRNA-Mkln1. LincRNA-p21 participates in TP53-dependent transcriptional repression leading to apoptosis and seems to have an effect on cell-cycle regulation. Implicated in Notch signaling cross- over. Prevents CDK7 kinase activity when associated to CAK complex in response to DNA damage, thus stopping cell cycle progression. Isoform 2 enhances the transactivation activity of isoform 1 from some but not all TP53-inducible promoters. Isoform 4 suppresses transactivation activity and impairs growth suppression mediated by isoform 1. Isoform 7 inhibits isoform 1-mediated apoptosis. Regulates the circadian clock by repressing CLOCK-ARNTL/BMAL1-mediated



Dot blot analysis of anti-Phospho-P53-S9 Antibody (Cat. #AP3206a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antobodies working concentration was 0.5ug per ml.

# Phospho-P53(S9) Antibody - Background

Tumor protein p53, a nuclear protein, plays an essential role in the regulation of cell cycle, specifically in the transition from G0 to G1. It is found in very low levels in normal cells, however, in a variety of transformed cell lines, it is expressed in high amounts, and believed to contribute to transformation and malignancy. p53 is a DNA-binding protein containing DNA-binding, oligomerization and transcription activation domains. It is postulated to bind as a tetramer to a p53-binding site and activate expression of downstream genes that inhibit growth and/or invasion, and thus function as a tumor suppressor. Mutants of p53 that frequently occur in a number of different human cancers fail to bind the consensus DNA binding site, and hence cause the loss of tumor suppressor activity. Alterations of the TP53 gene occur not only as somatic mutations in human malignancies, but also as germline mutations in some cancer-prone families with Li-Fraumeni syndrome.

# Phospho-P53(S9) Antibody - References

Blanchette, P., et al., Mol. Cell. Biol. 24(21):9619-9629 (2004). Adachi, K., et al.,





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transcriptional activation of PER2 (PubMed:<a href="http://www.uniprot.org/c itations/24051492" target=" blank">24051492</a>).

## **Cellular Location**

Cytoplasm. Nucleus. Nucleus, PML body Endoplasmic reticulum. Mitochondrion matrix Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Note=Recruited into PML bodies together with CHEK2 (PubMed:12810724). Translocates to mitochondria upon oxidative stress (PubMed:22726440). Translocates to mitochondria in response to mitomycin C treatment (PubMed:27323408) [Isoform 2]: Nucleus. Cytoplasm. Note=Localized mainly in the nucleus with minor staining in the cytoplasm [Isoform 4]: Nucleus. Cytoplasm. Note=Predominantly nuclear but translocates to the cytoplasm following cell stress [Isoform 8]: Nucleus. Cytoplasm. Note=Localized in both nucleus and cytoplasm in most cells. In some cells, forms foci in the nucleus that are different from nucleoli

#### **Tissue Location**

Ubiquitous. Isoforms are expressed in a wide range of normal tissues but in a tissue-dependent manner. Isoform 2 is expressed in most normal tissues but is not detected in brain, lung, prostate, muscle, fetal brain, spinal cord and fetal liver. Isoform 3 is expressed in most normal tissues but is not detected in lung, spleen, testis, fetal brain, spinal cord and fetal liver. Isoform 7 is expressed in most normal tissues but is not detected in prostate, uterus, skeletal muscle and breast. Isoform 8 is detected only in colon, bone marrow, testis, fetal brain and intestine. Isoform 9 is expressed in most normal tissues but is not detected in brain, heart, lung, fetal liver, salivary gland, breast or intestine

## Phospho-P53(S9) Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry

Oncogene 23(47):7791-7798 (2004). Zhang, Y., et al., J. Biol. Chem. 279(41):42545-42551 (2004). Anazawa, Y., et al., Oncogene 23(46):7621-7627 (2004). Montagnoli, A., et al., Cancer Res. 64(19):7110-7116 (2004).





• <u>Immunofluorescence</u>

- <u>Immunoprecipitation</u>
- Flow Cytomety
   Cell Culture