

Product datasheet for **AP20261PU-M**

p53 (TP53) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	Western blot: 1/500-1/1000. Immunohistochemistry on paraffin sections: 1/50-1/200. Immunofluorescence: 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of p53 protein.
Formulation:	Phosphate buffered saline (PBS) with 0.05% sodium azide, approx. pH 7.2 State: Aff - Purified State: Liquid purified Ig fraction
Concentration:	1.0 mg/ml
Purification:	Affinity-chromatography using epitope-specific immunogen; purity is > 95% (by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 53,43 kDa
Gene Name:	tumor protein p53
Database Link:	Entrez Gene 22059 Mouse Entrez Gene 24842 Rat Entrez Gene 7157 Human P04637

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Background:

p53 plays a major role in the cellular response to DNA damage and other genomic aberrations. The activation of p53 can lead to either cell cycle arrest and DNA repair, or apoptosis. p53 is phosphorylated at multiple sites in vivo and by several different protein kinases in vitro. p53 can apparently be phosphorylated by ATM, ATR, and DNAPK at Ser15; the phosphorylation impairs the ability of MDM2 to bind p53, promoting both the accumulation and functional activation of p53 in response to DNA damage. Chk2 and Chk1 can phosphorylate p53 at Ser20, enhancing its tetramerization, stability and activity. p53 is phosphorylated at Ser392 in vivo and by CAK in vitro. Phosphorylation of p53 at Ser392 is altered in human tumors and has been reported to influence the growth suppressor function, DNA binding and transcriptional activation of p53. p53 is phosphorylated at Ser6 and Ser9 by ck1d and ck1e both in vitro and in vivo. Phosphorylation of p53 at Ser46 is important in regulating the ability of p53 to induce apoptosis. In vivo phosphorylation of p53 at Ser33 by cdk7/cyclin H and in response to UV irradiation has been observed.

Synonyms:

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

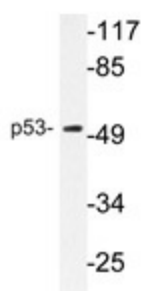
Protein Families:

Druggable Genome, Stem cell - Pluripotency, Transcription Factors

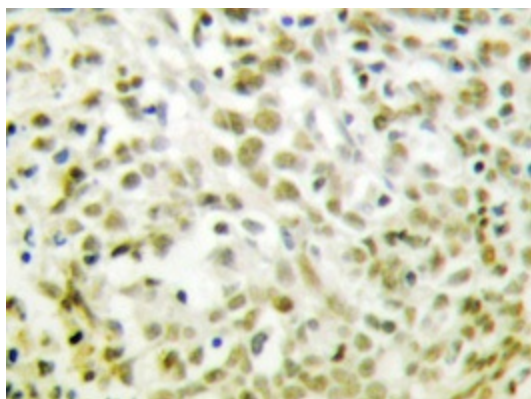
Protein Pathways:

Amyotrophic lateral sclerosis (ALS), Apoptosis, Basal cell carcinoma, Bladder cancer, Cell cycle, Chronic myeloid leukemia, Colorectal cancer, Endometrial cancer, Glioma, Huntington's disease, MAPK signaling pathway, Melanoma, Neurotrophin signaling pathway, Non-small cell lung cancer, p53 signaling pathway, Pancreatic cancer, Pathways in cancer, Prostate cancer, Small cell lung cancer, Thyroid cancer, Wnt signaling pathway

Product images:



Western blot analysis of p53 antibody ([AP20261PU-NJ]) in extracts from COS7 cells.



Immunohistochemistry analyzes of p53 antibody ([AP20261PU-N]) in paraffin-embedded human lung carcinoma tissue.