

Product datasheet for **AP21082PU-S**

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
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of p53 protein. (region surrounding Val31)
Formulation:	Phosphate buffered saline (PBS), pH 7.2. State: Aff - Purified State: Liquid purified Ig fraction Preservative: 0.05% sodium azide
Concentration:	1.0 mg/ml
Purification:	Affinity chromatography (> 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 7157 Human P04637



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Background:

p53 is a DNA-binding, oligomerization domain and transcription activation domain-containing tumor suppressor that upregulates growth arrest and apoptosis-related genes in response to stress signals, thereby influencing programmed cell death, cell differentiation and cell cycle control mechanisms. p53 localizes to the nucleus yet can be chaperoned to the cytoplasm by the negative regulator MDM2, an E3 ubiquitin ligase that is upregulated in the presence of active p53, where MDM2 polyubiquitinates p53 for proteasome targeting. p53 can assemble into tetramers in the absence of DNA, fluctuates between latent and active (DNA-binding) conformations, and is differentially activated through posttranslational modifications including phosphorylation and acetylation. Mutations in the DNA-binding domain (DBD) (amino acids 110-286) of p53 can compromise energetically favorable association with cis elements and are implicated in several human cancers.

Synonyms:

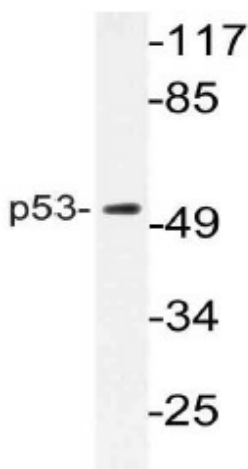
Cellular tumor antigen p53, Tumor suppressor p53, Phosphoprotein p53, NY-CO-13

Protein Families:

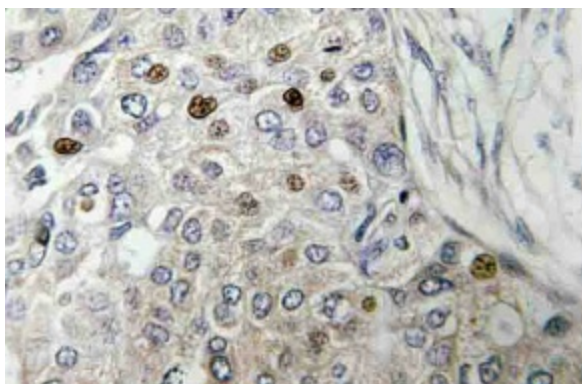
Druggable Genome, Stem cell - Pluripotency, Transcription Factors

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 (WB) analysis of p53 antibody (Cat.-No.: [AP21082PU-N]) in extracts from K562 cells.



Immunohistochemistry (IHC) analyzes of p53 antibody (Cat.-No.: [AP21082PU-N]) in paraffin-embedded human breast carcinoma tissue.