

Anti-p53 Tumor Suppressor Protein Antibody
Recombinant Rabbit Monoclonal Antibody
Catalog # AH13550**Specification**

Anti-p53 Tumor Suppressor Protein Antibody - Product Information

Application	WB, IHC-P, IF, FC
Primary Accession	P04637
Other Accession	654481
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal
Isotype	Rabbit / IgG, kappa
Calculated MW	43653

Anti-p53 Tumor Suppressor Protein Antibody - Additional Information**Gene ID** 7157**Other Names**

Antigen NY-CO-13, BCC7, Cellular Tumor Antigen p53, LFS1, TP53, Transformation Related Protein 53 (TRP53), Tumor Protein p53, Tumor Suppressor p53

Application Note

WB~~1:1000
IHC-P~~N/A
IF~~1:50~200
FC~~1:10~50

Format

200ug/ml of recombinant MAb purified by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

Storage

Store at 2 to 8°C. Antibody is stable for 24 months.

Precautions

Anti-p53 Tumor Suppressor Protein Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-p53 Tumor Suppressor Protein Antibody - Protein Information**Name** TP53**Synonyms** P53**Function**Multifunctional transcription factor that induces cell cycle arrest, DNA repair or apoptosis upon binding to its target DNA sequence (PubMed: <http://www.uniprot.org/citations/11025664>)

[target="_blank">11025664](#), PubMed: [target="_blank">12524540](http://www.uniprot.org/citations/12524540), PubMed: [target="_blank">12810724](http://www.uniprot.org/citations/12810724), PubMed: [target="_blank">15186775](http://www.uniprot.org/citations/15186775), PubMed: [target="_blank">15340061](http://www.uniprot.org/citations/15340061), PubMed: [target="_blank">17317671](http://www.uniprot.org/citations/17317671), PubMed: [target="_blank">17349958](http://www.uniprot.org/citations/17349958), PubMed: [target="_blank">19556538](http://www.uniprot.org/citations/19556538), PubMed: [target="_blank">20673990](http://www.uniprot.org/citations/20673990), PubMed: [target="_blank">20959462](http://www.uniprot.org/citations/20959462), PubMed: [target="_blank">22726440](http://www.uniprot.org/citations/22726440), PubMed: [target="_blank">24051492](http://www.uniprot.org/citations/24051492), PubMed: [target="_blank">24652652](http://www.uniprot.org/citations/24652652), PubMed: [target="_blank">35618207](http://www.uniprot.org/citations/35618207), PubMed: [target="_blank">36634798](http://www.uniprot.org/citations/36634798), PubMed: [target="_blank">38653238](http://www.uniprot.org/citations/38653238), PubMed: [target="_blank">9840937](http://www.uniprot.org/citations/9840937)). Acts as a tumor suppressor in many tumor types; induces growth arrest or apoptosis depending on the physiological circumstances and cell type (PubMed: [target="_blank">11025664](http://www.uniprot.org/citations/11025664), PubMed: [target="_blank">12524540](http://www.uniprot.org/citations/12524540), PubMed: [target="_blank">12810724](http://www.uniprot.org/citations/12810724), PubMed: [target="_blank">15186775](http://www.uniprot.org/citations/15186775), PubMed: [target="_blank">15340061](http://www.uniprot.org/citations/15340061), PubMed: [target="_blank">17189187](http://www.uniprot.org/citations/17189187), PubMed: [target="_blank">17317671](http://www.uniprot.org/citations/17317671), PubMed: [target="_blank">17349958](http://www.uniprot.org/citations/17349958), PubMed: [target="_blank">19556538](http://www.uniprot.org/citations/19556538), PubMed: [target="_blank">20673990](http://www.uniprot.org/citations/20673990), PubMed: [target="_blank">20959462](http://www.uniprot.org/citations/20959462), PubMed: [target="_blank">22726440](http://www.uniprot.org/citations/22726440), PubMed: [target="_blank">24051492](http://www.uniprot.org/citations/24051492), PubMed: [target="_blank">24652652](http://www.uniprot.org/citations/24652652), PubMed: [target="_blank">38653238](http://www.uniprot.org/citations/38653238), PubMed: [target="_blank">9840937](http://www.uniprot.org/citations/9840937)). Negatively regulates cell division by controlling expression of a set of genes required for this process (PubMed: [target="_blank">11025664](http://www.uniprot.org/citations/11025664), PubMed: [target="_blank">12524540](http://www.uniprot.org/citations/12524540), PubMed: [target="_blank">12810724](http://www.uniprot.org/citations/12810724), PubMed: [target="_blank">15186775](http://www.uniprot.org/citations/15186775), PubMed: [target="_blank">15340061](http://www.uniprot.org/citations/15340061), PubMed: [target="_blank">17317671](http://www.uniprot.org/citations/17317671), PubMed: [target="_blank">17349958](http://www.uniprot.org/citations/17349958), PubMed: [target="_blank">19556538](http://www.uniprot.org/citations/19556538), PubMed: [target="_blank">20673990](http://www.uniprot.org/citations/20673990), PubMed: [target="_blank">20959462](http://www.uniprot.org/citations/20959462), PubMed: [target="_blank">22726440](http://www.uniprot.org/citations/22726440), PubMed: [target="_blank">24051492](http://www.uniprot.org/citations/24051492), PubMed: [target="_blank">24652652](http://www.uniprot.org/citations/24652652), PubMed: [target="_blank">9840937](http://www.uniprot.org/citations/9840937)). 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 (PubMed: [target="_blank">12524540](http://www.uniprot.org/citations/12524540), PubMed: [target="_blank">17189187](http://www.uniprot.org/citations/17189187)). Its pro-apoptotic activity is activated via its interaction with PPP1R13B/ASPP1 or TP53BP2/ASPP2 (PubMed: [target="_blank">12524540](http://www.uniprot.org/citations/12524540)). However, this activity is inhibited when the interaction with PPP1R13B/ASPP1 or TP53BP2/ASPP2 is displaced

by PPP1R13L/iASPP (PubMed:12524540). 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-BMAL1-mediated transcriptional activation of PER2 (PubMed:24051492).

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). Competitive inhibition of TP53 interaction with HSPA9/MOT-2 by UBXN2A results in increased protein abundance and subsequent translocation of TP53 to the nucleus (PubMed:24625977) [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

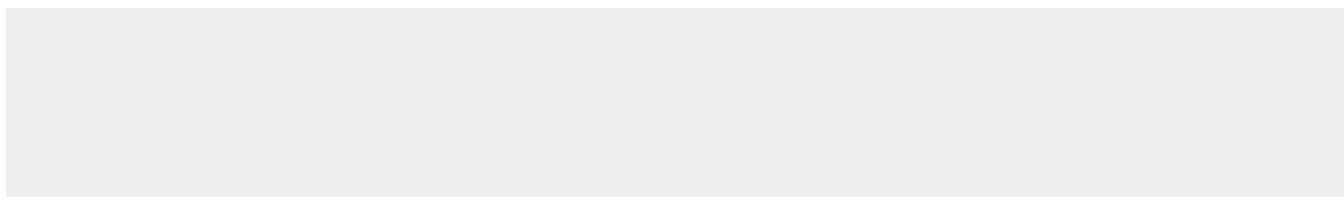
Ubiquitous. Isoforms are expressed in a wide range of normal tissues but in a tissue-dependent manner. Isoform 2 is expressed in most normal tissues but is not detected in brain, lung, prostate, muscle, fetal brain, spinal cord and fetal liver. Isoform 3 is expressed in most normal tissues but is not 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

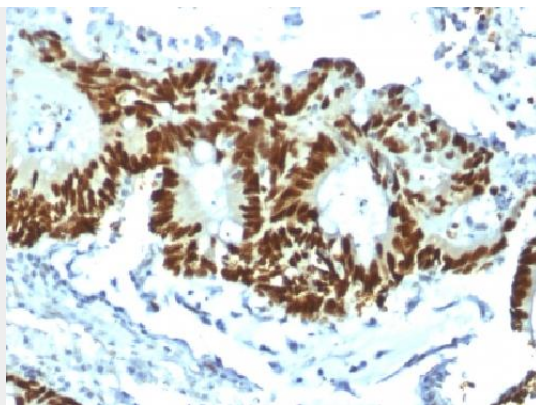
Anti-p53 Tumor Suppressor Protein Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-p53 Tumor Suppressor Protein Antibody - Images





Formalin-fixed, paraffin-embedded human Colon Carcinoma stained with p53 Recombinant Rabbit Monoclonal Antibody (TP53/1799R)

Anti-p53 Tumor Suppressor Protein Antibody - Background

Recognizes a 53kDa protein, which is identified as p53 suppressor gene product. It reacts with the mutant as well as the wild form of p53 protein. p53 is a tumor suppressor gene expressed in a wide variety of tissue types and is involved in regulating cell growth, replication, and apoptosis. It binds to MDM2, SV40 T antigen and human papilloma virus E6 protein. Positive nuclear staining with p53 antibody has been reported to be a negative prognostic factor in breast carcinoma, lung carcinoma, colorectal, and urothelial carcinoma. Anti-p53 positivity has also been used to differentiate uterine serous carcinoma from endometrioid carcinoma as well as to detect intratubular germ cell neoplasia. Mutations involving p53 are found in a wide variety of malignant tumors, including breast, ovarian, bladder, colon, lung, and melanoma.