



p53

Mouse Monoclonal antibody(Mab) **Catalog # AD80172**

Specification

p53 - Product info

Application IHC-P, IHC **Primary Accession** P04637 Reactivity Human Host Mouse Clonality **Monoclonal** Calculated MW 43653

p53 - Additional info

Gene ID 7157 Gene Name **TP53**

Other Names

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

Dilution

IHC-P~~Ready-to-use IHC~~Ready-to-use

Storage

Maintain refrigerated at 2-8°C

Precautions p53 Antibody is for research use only and

not for use in diagnostic or therapeutic

procedures.

p53 - Protein Information

Name TP53

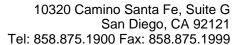
Synonyms P53

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





Cellular Location

Tissue Location

expression, or by repression of Bcl-2 expression. 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** transcriptional activation of PER2 (PubMed:24051492). Cytoplasm. Nucleus. Nucleus, PML body. **Endoplasmic reticulum. Mitochondrion** matrix. Note=Interaction with BANP promotes nuclear localization. Recruited into PML bodies together with CHEK2. Translocates to mitochondria upon oxidative stress. 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 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



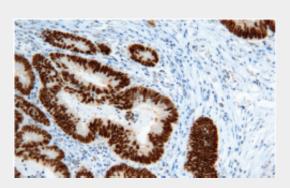
prostate, uterus, skeletal muscle and breast Isoform 8 is detected only in colon, bone marrow, testis, fetal brain and intestine. Isoform 9 is expressed in most normal tissues but is not detected in brain, heart, lung, fetal liver, salivary gland, breast or intestine.

p53 - Protocols

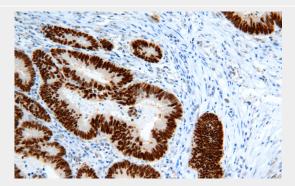
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

p53 - Images



Colon cancer



Immunohistochemical analysis of paraffin-embedded colorectal carcinoma; tissue using AD80172 performed on the Abcarta® FAIP-30 Fully automated IHC platform. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody (Ready-to-use) for 15 min at room temperature. AmpSeeTM Detection Systems Abcepta: AR005 was used as the secondary antibody.