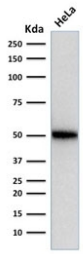
p53 Antibody Clone SPM514 / TP53 Tumor Suppressor Antibody [clone SPM514] (V7927)

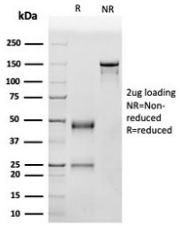
Catalog No.	Formulation	Size
V7927-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7927-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7927SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	SPM514
Purity	Protein G affinity chromatography
UniProt	P04637
Localization	Nuclear
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 0.25-0.5ug/ml
Limitations	This p53 antibody is available for research use only.



p53 Antibody Clone SPM514 / TP53 Tumor Suppressor Antibody. Western blot analysis of human HeLa cell lysate demonstrates detection of p53 protein using the mouse monoclonal clone SPM514. Lane 1: human HeLa cell lysate. A band is detected at approximately 53 kDa, consistent with the predicted molecular weight of Tumor protein p53 / TP53. This result supports specific recognition of endogenous p53 in human cell lysates by the SPM514 monoclonal antibody.



SDS-PAGE analysis of purified, BSA-free p53 Antibody Clone SPM514 / TP53 Tumor Suppressor Antibody as confirmation of integrity and purity.

Description

RTumor protein p53 (TP53) is a sequence-specific transcription factor that functions as a central tumor suppressor controlling cellular responses to DNA damage, oncogenic stress, and genomic instability. The p53 Antibody Clone SPM514 is a monoclonal antibody developed for detection of TP53 protein and provides a clone-specific reagent for studying p53 signaling pathways and tumor suppressor biology.

TP53 antibody reagents are widely used in cancer research because p53 is one of the most frequently altered proteins in human tumors. The p53 Antibody Clone SPM514 recognizes Tumor protein p53, also known as Cellular tumor antigen p53, a transcriptional regulator encoded by the TP53 gene on chromosome 17p13.1. The p53 protein contains several functional domains including an N-terminal transcriptional activation region, a central DNA-binding domain responsible for sequence-specific gene regulation, a tetramerization domain required for formation of active transcriptional complexes, and a regulatory C-terminal region that modulates DNA binding and protein stability.

The SPM514 clone provides a monoclonal antibody approach for detecting p53 expression in cellular and tissue samples. In normal cells, p53 protein levels remain low because the E3 ubiquitin ligase MDM2 rapidly targets the protein for proteasomal degradation. Cellular stresses such as DNA damage, oncogene activation, oxidative stress, or hypoxia disrupt this regulatory pathway and stabilize p53. Stabilized TP53 accumulates in the nucleus where it activates transcription of genes involved in cell cycle arrest, DNA repair, senescence, and apoptosis.

Because p53 accumulation is a hallmark of many cancers, antibodies such as p53 Antibody Clone SPM514 are commonly used to evaluate TP53 pathway activation and tumor suppressor regulation. Detection of nuclear p53 protein helps investigators study mechanisms of genomic stability, oncogene-induced stress responses, and transcriptional control of growth regulatory genes including CDKN1A (p21), BAX, and PUMA.

The SPM514 monoclonal antibody clone provides researchers with a defined reagent for investigating p53 biology across experimental systems. Clone-specific antibodies are particularly valuable when comparing reagents across studies or validating experimental workflows, and p53 Antibody Clone SPM514 enables focused investigation of TP53 expression and regulation. Through detection of Tumor protein p53, the SPM514 clone supports studies examining cancer signaling networks, tumor suppressor activity, and cellular responses to genotoxic stress.

Researchers studying p53 expression and TP53 signaling can explore our Protein Microarray Validated p53 Antibody page for additional reagents targeting this key tumor suppressor in cancer, DNA damage response and cell cycle research.

Application Notes

Optimal dilution of the p53 Antibody Clone SPM514 / TP53 Tumor Suppressor Antibody should be determined by the researcher.

Immunogen

A recombinant human full-length TP53 protein was used as the immunogen for the p53 Antibody Clone SPM514 / TP53 Tumor Suppressor Antibody.

Storage

Store the p53 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

TP53 antibody, Tumor protein p53 antibody, Cellular tumor antigen p53 antibody, p53 tumor suppressor antibody

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