

p53 Antibody Clone PAb240 / TP53 Mutant Tumor Suppressor Antibody [clone PAb240] (V8130)

Catalog No.	Formulation	Size
V8130-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8130-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8130SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

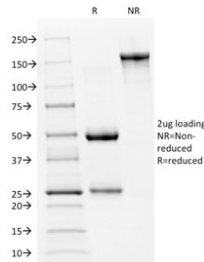
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	PAb240
Purity	Protein G affinity chromatography
UniProt	P04637
Localization	Nuclear
Applications	ELISA (order BSA-free Format For Coating) :
Limitations	This p53 antibody is available for research use only.

Human Protein Microarray Specificity Validation



p53 Antibody Clone PAb240 / TP53 Mutant Tumor Suppressor Antibody (clone PAb240). Protein microarray specificity validation using a HuProt(TM) human protein array containing more than 19,000 full-length human proteins demonstrates selective binding of p53 Antibody Clone PAb240. The ranked signal plot shows strong signal for TP53 among the top targets detected on the array, supporting the specificity of clone PAb240 for Tumor protein p53.

The Z-score represents the strength of antibody binding to each protein target detected using a fluorescently labeled secondary antibody. Z-scores are expressed in standard deviations above the mean signal across the array. Proteins are ranked by descending Z-score, and the S-score represents the difference between adjacent Z-scores in the ranked list. A high S-score indicates strong specificity of the antibody for its intended target relative to other proteins present on the array.



SDS-PAGE analysis of purified, BSA-free p53 Antibody Clone PAb240 / TP53 Mutant Tumor Suppressor Antibody as confirmation of integrity and purity.

Description

Tumor protein p53 (TP53) is a sequence-specific transcription factor that functions as a central tumor suppressor regulating DNA damage responses, cell cycle arrest, apoptosis, and genomic stability. The p53 Antibody Clone PAb240 is a widely recognized monoclonal antibody used to study p53 expression, particularly conformationally altered or mutant forms of TP53 frequently observed in cancer cells.

TP53 antibody, also referred to as Tumor protein p53 antibody or Cellular tumor antigen p53 antibody in the literature, targets one of the most extensively studied tumor suppressor proteins in human biology. The TP53 gene is located on chromosome 17p13.1 and encodes a transcription factor belonging to the p53 family of DNA-binding proteins. The p53 protein contains multiple functional domains including an N-terminal transcriptional activation region, a central DNA-binding domain responsible for sequence-specific transcriptional regulation, a tetramerization domain required for formation of active p53 complexes, and a C-terminal regulatory region that modulates DNA interaction and protein stability.

Under normal cellular conditions, p53 protein levels remain tightly regulated through rapid ubiquitination and proteasomal degradation mediated primarily by the E3 ubiquitin ligase MDM2. Cellular stress signals such as DNA damage, oncogene activation, oxidative stress, or hypoxia disrupt this regulatory pathway and stabilize p53 protein. Stabilized p53 accumulates within the nucleus where it activates transcription of genes including CDKN1A (p21), BAX, and PUMA that regulate cell cycle arrest and apoptosis.

The p53 Antibody Clone PAb240 is notable for recognizing a conformational epitope exposed in structurally altered forms of the p53 protein. Because many TP53 mutations disrupt normal folding of the p53 DNA-binding domain, mutant p53 proteins frequently display altered structural epitopes that are detected by clone PAb240. As a result, p53 Antibody Clone PAb240 is commonly used in studies investigating mutant p53 accumulation, structural alterations of TP53, and tumor-associated p53 protein stabilization.

Clone PAb240 has been widely cited in the scientific literature for detection of mutant p53 in cancer research. The p53 Antibody Clone PAb240 recognizes Tumor protein p53 and supports investigation of TP53 conformational changes associated with oncogenic mutation and tumor progression. Detection of mutant p53 accumulation is particularly relevant in studies examining p53 pathway disruption in malignant cells.

Because TP53 mutations are among the most common genetic alterations in human cancers, reagents such as p53 Antibody Clone PAb240 provide valuable tools for studying mutant p53 biology, structural alterations in tumor suppressor proteins, and molecular mechanisms underlying cancer development.

Application Notes

Optimal dilution of the p53 Antibody Clone PAb240 / TP53 Mutant Tumor Suppressor Antibody should be determined by the researcher.

Immunogen

Gel-Purified p53-beta-galactosidase fusion protein containing murine p53 from amino acids 14-389 was used as the immunogen for the p53 Antibody Clone PAb240 / TP53 Mutant 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