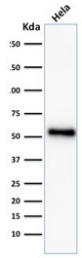
Recombinant p53 Antibody / Rabbit Monoclonal [clone TP53/2092R] (V3646)

Catalog No.	Formulation	Size
V3646-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3646-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3646SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V3646IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

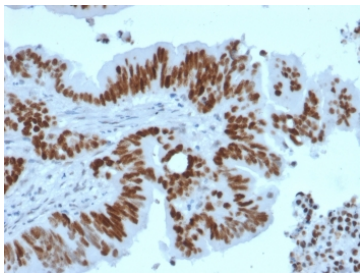
Recombinant RABBIT MONOCLONAL

Bulk quote request

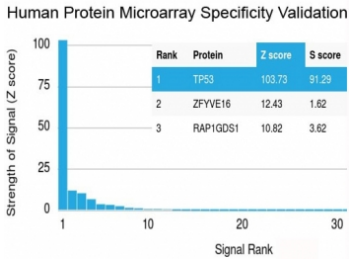
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	TP53/2092R
Purity	Protein A affinity chromatography
UniProt	P04637
Localization	Predominantly nuclear
Applications	Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT (1)
Limitations	This recombinant p53 antibody is available for research use only.



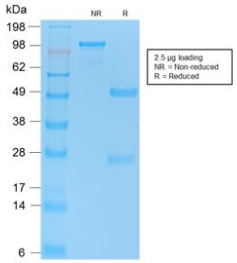
Western blot testing of human HeLa cell lysate with recombinant p53 antibody (clone TP53/2092R).



IHC testing of FFPE human colon carcinoma with recombinant p53 antibody (clone TP53/2092R). Required HIER: boil tissue sections in pH6, 10mM citrate buffer, for 10-20 min followed by cooling at RT for 20 min.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using recombinant p53 antibody (clone TP53/2092R). These results demonstrate the foremost specificity of the TP53/2092R mAb.
Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.



SDS-PAGE analysis of purified, BSA-free p53 antibody (clone TP53/2092R) as confirmation of integrity and purity.

Description

Recombinant p53 antibody is designed to detect tumor protein p53, one of the most studied transcription factors in biology. Encoded by the TP53 gene, p53 is often referred to as the guardian of the genome because of its central role in maintaining genomic stability. It regulates cell cycle arrest, DNA repair, senescence, and apoptosis in response to stress signals. Because of its importance, p53 is studied extensively in cancer biology, developmental biology, and cell stress research.

In normal cells, p53 levels are low due to continuous degradation by MDM2 mediated ubiquitination. In response to DNA damage, oncogenic stress, or hypoxia, p53 becomes stabilized and accumulates in the nucleus, where it activates transcription of target genes. Mutations in TP53 are among the most common genetic alterations in human cancers, leading to loss of tumor suppressor activity and gain of oncogenic properties.

The Recombinant p53 antibody clone TP53/2092R ensures reproducible and accurate detection. Recombinant production eliminates lot to lot variability, making it well suited for comparative and long term studies. Clone TP53/2092R has been applied in oncology to examine tumor suppressor function, in cell biology to study stress responses, and in developmental biology to investigate checkpoint control. Its nuclear staining pattern supports high quality data.

Research with clone TP53/2092R has clarified how p53 regulates pathways that protect cells from malignant transformation. Altered expression or mutation of p53 correlates with cancer progression, treatment resistance, and poor prognosis. The antibody continues to aid translational research, where restoring p53 function remains a major therapeutic strategy.

NSJ Bioreagents offers this Recombinant p53 antibody to support investigations into cancer, cell cycle regulation, and stress responses. The protein is also known as TP53 antibody, tumor suppressor p53 antibody, cellular tumor antigen

p53 antibody, and guardian of the genome antibody, reflecting its prominence in biomedical science.

Application Notes

The stated application concentrations are suggested starting points. Titration of the recombinant p53 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Recombinant human protein was used as the immunogen for this recombinant p53 antibody.

Storage

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