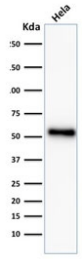
p53 Antibody TP53/2092R / TP53 Tumor Suppressor Antibody [clone TP53/2092R] (V3646)

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

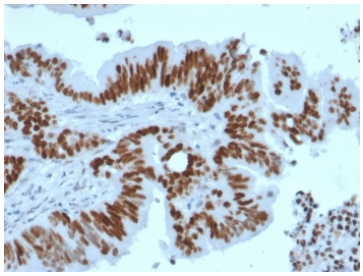
Recombinant RABBIT MONOCLONAL

Bulk quote request

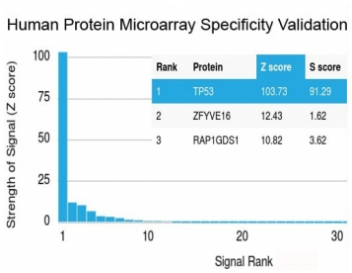
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	TP53/2092R
Purity	Protein A affinity chromatography
UniProt	P04637
Localization	Predominantly nuclear
Applications	Western blot: 1-2ug/ml Immunohistochemistry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



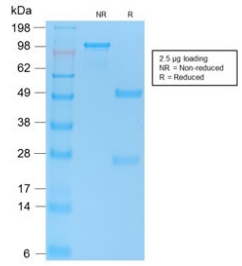
p53 Antibody TP53/2092R Human HeLa Cell WB. Western blot analysis of human HeLa cell lysate was performed with recombinant p53 Antibody clone TP53/2092R. A specific band is detected at approximately 53 kDa, consistent with the predicted molecular weight of tumor protein p53/TP53. This p53 Antibody demonstrates detection of endogenous TP53 in human HeLa cells and supports the Protein Microarray Validated clone TP53/2092R for studies of tumor suppressor biology and cancer-related signaling.



p53 Antibody TP53/2092R Human Colon Carcinoma IHC. Immunohistochemistry staining of FFPE human colon carcinoma tissue was performed with recombinant p53 Antibody clone TP53/2092R. Heat-induced epitope retrieval was performed by boiling tissue sections in 10 mM citrate buffer, pH 6, for 10-20 min followed by cooling at RT. Strong nuclear staining is observed in malignant glandular epithelial cells, while surrounding stromal elements show minimal staining. This p53 Antibody demonstrates nuclear TP53 localization in human colon carcinoma and supports the Protein Microarray Validated clone TP53/2092R for studies of tumor suppressor biology and cancer.



p53 Antibody Microarray Specificity Validated Clone TP53/2092R / TP53 Tumor Suppressor Antibody. Protein microarray specificity validation using a HuProt(TM) human protein array containing more than 19,000 full-length human proteins demonstrates highly selective binding of the recombinant rabbit monoclonal clone TP53/2092R. The ranked signal plot shows TP53 as the top detected target, supporting the specificity of the p53 Antibody Microarray Specificity Validated clone TP53/2092R 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 TP53/2092R) as confirmation of integrity and purity.

Description

p53 Antibody TP53/2092R / TP53 Tumor Suppressor Antibody is a recombinant rabbit monoclonal antibody targeting p53, a transcription factor encoded by the TP53 gene and one of the most extensively studied tumor suppressor proteins in cancer biology. p53 functions as a central cellular stress-response regulator, integrating signals generated by DNA damage, oncogene activation and other forms of cellular stress. Depending on cellular context, p53 activation can promote cell-cycle arrest, DNA repair, senescence, apoptosis or other responses that limit the propagation of damaged cells.

Under normal conditions, cellular p53 levels are tightly controlled, particularly through interactions with regulatory proteins such as MDM2. Cellular stress can stabilize and activate p53, allowing it to regulate transcription of genes involved in cell-cycle control and cell survival. Among its well-characterized targets is CDKN1A/p21, which contributes to p53-mediated cell-cycle arrest. A p53 Antibody can therefore support research into DNA damage signaling, checkpoint regulation,

apoptosis, cellular senescence and mechanisms that preserve genomic integrity.

TP53 is particularly important in cancer research because alterations affecting the p53 pathway are extremely common in human malignancies. TP53 mutations can disrupt normal tumor suppressor activity, while some mutant p53 proteins exhibit increased stability and accumulate within tumor cells. p53 expression and localization are consequently investigated across a broad spectrum of tumor types. Research into wild-type and altered p53 continues to provide insight into tumor development, cancer progression, therapeutic response and resistance mechanisms.

Clone TP53/2092R has been evaluated using a human protein microarray to assess antibody specificity across a large collection of recombinant proteins. Protein Microarray Validated antibodies provide an additional means of evaluating target recognition beyond tissue- or cell-based testing. In HuProt protein microarray analysis, the Z-score reflects the strength of antibody binding relative to background signals across the array, while the S-score reflects the relative specificity of target recognition compared with other proteins represented on the array. These data can provide useful supporting evidence for the specificity profile of clone TP53/2092R.

NSJ Bioreagents offers recombinant rabbit monoclonal p53 Antibody clone TP53/2092R for investigating TP53 expression and tumor suppressor biology. A TP53 Tumor Suppressor Antibody can support research into DNA damage responses, cell-cycle regulation, apoptosis, genomic stability and molecular mechanisms underlying cancer development.

Researchers investigating p53 expression and tumor suppressor pathways can explore our Cancer Marker Antibodies page for additional targets associated with tumor biology, cellular proliferation and cancer-related signaling.

Application Notes

The stated application concentrations are suggested starting points. Titration of the p53 Antibody TP53/2092R / TP53 Tumor Suppressor 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 p53 Antibody Microarray Specificity Validated Clone TP53/2092R.

Storage

Store the recombinant 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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