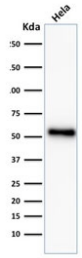
p53 Antibody Microarray Specificity Validated Clone TP53/2092R / TP53 Tumor Suppressor Antibody [clone TP53/2092R] (V3646)

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

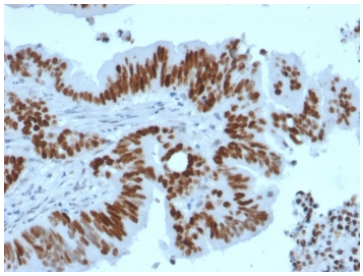
Recombinant RABBIT MONOCLONAL

Bulk quote request

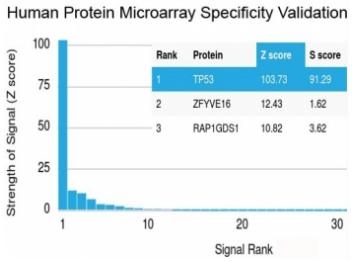
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	TP53/2092R
Purity	Protein A affinity chromatography
UniProt	P04637
Localization	Predominantly nuclear
Applications	Western Blot : 1-2ug/ml Immunohistochemistry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



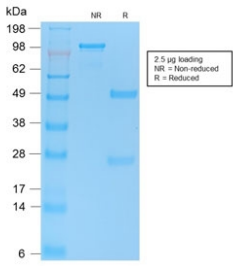
p53 Antibody Microarray Specificity Validated Clone TP53/2092R / TP53 Tumor Suppressor Antibody. Western blot analysis of human HeLa cell lysate demonstrates detection of Tumor protein p53 using the recombinant rabbit monoclonal clone TP53/2092R. Lane 1: human HeLa cell lysate. A band is detected at approximately 53 kDa, consistent with the predicted molecular weight of Tumor protein p53 / TP53. This result supports specific recognition of endogenous p53 protein by the Microarray Specificity Validated clone TP53/2092R in western blot analysis.



p53 Antibody Microarray Specificity Validated Clone TP53/2092R / TP53 Tumor Suppressor Antibody. Immunohistochemistry analysis of formalin-fixed, paraffin-embedded human colon carcinoma demonstrates strong nuclear staining of tumor epithelial cells using the recombinant rabbit monoclonal clone TP53/2092R. The HRP-DAB brown chromogenic signal highlights nuclear localization of Tumor protein p53 / TP53 within malignant glandular epithelial cells, while surrounding stromal elements show minimal staining. Tissue sections were subjected to heat-induced epitope retrieval by boiling in pH 6.0, 10mM citrate buffer for 10-20 minutes followed by cooling at room temperature prior to antibody incubation.



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

Tumor protein p53 (TP53) is a sequence-specific transcription factor that functions as a central tumor suppressor controlling DNA damage responses, apoptosis, and genomic stability. The p53 Antibody Microarray Specificity Validated Clone TP53/2092R is a recombinant rabbit monoclonal antibody developed for detection of p53 protein and distinguished by protein microarray-based validation confirming highly selective recognition of TP53.

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

The defining characteristic of the p53 Antibody Microarray Specificity Validated clone TP53/2092R is the use of high-density human protein microarray screening to evaluate antibody specificity. In this approach, thousands of full-length human proteins are immobilized on a single array and probed with the antibody, allowing direct assessment of cross-reactivity across the human proteome. This Microarray Specificity Validated strategy provides strong evidence that clone TP53/2092R selectively recognizes Tumor protein p53 while minimizing off-target interactions.

Protein microarray validation is particularly important for transcription factors such as p53 that participate in complex signaling pathways and share structural features with other regulatory proteins. The p53 Antibody Microarray Specificity Validated reagent therefore provides researchers with increased confidence in the specificity of TP53 detection when studying tumor suppressor signaling, DNA damage response pathways, and cancer-associated cellular stress mechanisms.

By combining recombinant monoclonal antibody technology with Microarray Specificity Validated screening, the p53 Antibody Microarray Specificity Validated clone TP53/2092R offers a reagent designed for highly specific detection of p53 protein. This approach supports research investigating TP53 pathway activation, transcriptional regulation of growth control genes, and molecular mechanisms underlying genomic stability and tumor suppression.

Application Notes

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