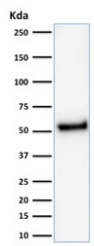
TP53 Antibody for Western Blot / p53 Western Blot Antibody [clone rTP53/1739] (V3939)

Catalog No.	Formulation	Size
V3939-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3939-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3939SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

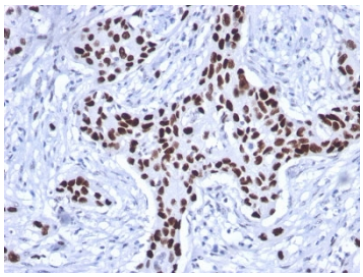
Recombinant MOUSE MONOCLONAL

Bulk quote request

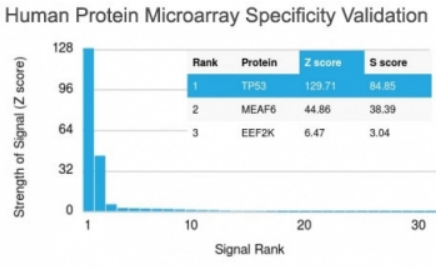
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rTP53/1739
Purity	Protein G affinity chromatography
UniProt	P04637
Localization	Nuclear
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 0.5-1ug/ml for 30 min at RT
Limitations	This p53/TP53 antibody is available for research use only.



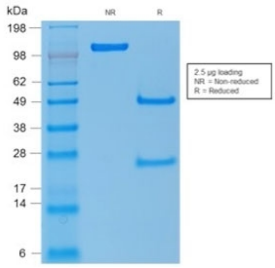
TP53 Antibody for Western Blot / p53 Western Blot Antibody (clone rTP53/1739). Western blot analysis of human HeLa cell lysate demonstrates detection of Tumor protein p53 using the recombinant mouse monoclonal clone rTP53/1739. Lane 1: human HeLa cell lysate. A band is detected at approximately 53 kDa, consistent with the predicted molecular weight of Tumor protein p53 / TP53. This result confirms that the TP53 Antibody for Western Blot detects endogenous p53 protein in human cell lysates by western blot analysis.



TP53 Antibody for Western Blot / p53 Western Blot Antibody (clone rTP53/1739). Immunohistochemistry analysis of formalin-fixed, paraffin-embedded human breast carcinoma demonstrates nuclear staining of tumor epithelial cells using the recombinant mouse monoclonal clone rTP53/1739. The chromogenic HRP-DAB brown signal highlights strong nuclear localization of Tumor protein p53 / TP53 in malignant cells, while surrounding stromal elements show minimal staining. Tissue sections were subjected to heat-induced epitope retrieval by boiling in 10mM citrate buffer, pH 6.0, for 10-20 minutes followed by cooling at room temperature prior to antibody incubation.



TP53 Antibody for Western Blot / p53 Western Blot Antibody (clone rTP53/1739). Protein microarray specificity validation using a HuProt(TM) human protein array containing more than 19,000 full-length human proteins demonstrates selective binding of the recombinant monoclonal clone rTP53/1739. The ranked signal plot shows TP53 as the top detected target, supporting strong specificity of the TP53 Antibody for Western Blot 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 recombinant p53/TP53 antibody (clone rTP53/1739) 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, apoptosis, and genomic stability. The TP53 Antibody for Western Blot clone rTP53/1739 is a recombinant mouse monoclonal antibody designed to detect p53 protein in western blot experiments, enabling researchers to evaluate TP53 expression and stabilization in cell and tissue lysates.

TP53 antibody reagents are widely used in cancer biology 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. The p53 protein contains multiple structural 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 transcription complexes, and a regulatory C-terminal region that modulates DNA binding and protein stability.

Detection of p53 protein by immunoblotting is a common strategy used to study TP53 pathway activation. In normal cells, p53 levels remain low due to rapid ubiquitination and 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. As a result, TP53 accumulates within the nucleus and can be readily detected by western blot analysis, making antibodies such as the TP53 Antibody for Western Blot particularly valuable for studying stress response pathways.

The recombinant monoclonal clone rTP53/1739 supports reliable detection of endogenous p53 protein in denatured

lysates separated by SDS-PAGE. In western blot experiments, TP53 typically appears as a band near the predicted molecular weight of approximately 53 kDa, although band intensity can increase substantially following DNA damage or oncogenic signaling. Using the TP53 Antibody for Western Blot, investigators can monitor changes in p53 protein levels during studies of tumor suppressor signaling, genotoxic stress responses, and cancer progression.

Western blot analysis of p53 remains a foundational technique for evaluating TP53 pathway activation in experimental models. The TP53 Antibody for Western Blot clone rTP53/1739 provides a recombinant monoclonal reagent optimized for immunoblot detection of p53 protein, supporting research focused on DNA damage signaling, tumor suppressor regulation, and molecular mechanisms driving malignant transformation.

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 TP53 Antibody for Western Blot / p53 Western Blot Antibody should be determined by the researcher.

Immunogen

Recombinant full length human protein was used as the immunogen for the TP53 Antibody for Western Blot / p53 Western Blot Antibody.

Storage

Store the recombinant p53/TP53 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

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

Copyright © NSJ Bioreagents. All rights reserved.