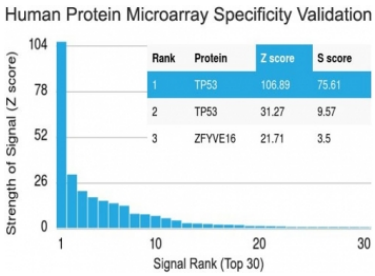
p53 Antibody for FACS / TP53 Flow Cytometry Antibody [clone TP53/1799R] (V3513)

Catalog No.	Formulation	Size
V3513-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3513-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3513SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V3513IHC-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

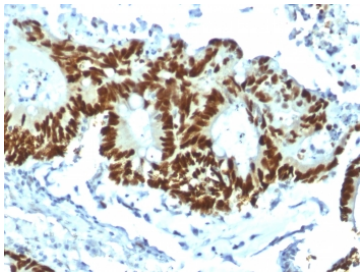
Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	TP53/1799R
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 Flow Cytometry : 1-2ug/million cells
Limitations	This recombinant p53 antibody is available for research use only.

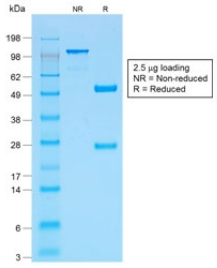


Protein array validation of the recombinant p53 antibody: Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using recombinant p53 antibody (clone TP53/1799R).

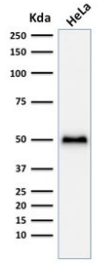
Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value 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.



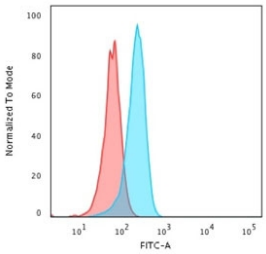
IHC testing of FFPE human colon carcinoma with recombinant p53 antibody (clone TP53/1799R). Required HIER: boil tissue sections in 10mM citrate buffer, pH 6, for 10-20 min.



SDS-PAGE analysis of purified, BSA-free recombinant p53 antibody (clone TP53/1799R) as confirmation of integrity and purity.



Western blot testing of human HeLa cell lysate with recombinant p53 antibody (clone TP53/1799R).



p53 Antibody for FACS / TP53 Flow Cytometry Antibody (clone TP53/1799R). Flow cytometry analysis of human HeLa cells demonstrates intracellular detection of Tumor protein p53 using the recombinant rabbit monoclonal clone TP53/1799R. Cells stained with the p53 Antibody for FACS show a clear rightward fluorescence shift (blue histogram) compared with the isotype control (red histogram), indicating specific binding to intracellular TP53 protein. The x-axis represents FITC-A fluorescence intensity on a logarithmic scale, and the y-axis represents events normalized to mode.

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 p53 Antibody for FACS clone TP53/1799R is a

recombinant rabbit monoclonal antibody developed specifically for flow cytometry applications, enabling sensitive detection of intracellular p53 protein in individual cells during fluorescence-activated cell sorting analysis.

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. The p53 protein contains several functional regions including an N-terminal transcriptional activation domain, 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.

The defining characteristic of the p53 Antibody for FACS clone TP53/1799R is its application in fluorescence-activated cell sorting workflows. Flow cytometry enables quantitative measurement of intracellular protein levels in thousands of individual cells, allowing investigators to detect shifts in p53 expression within heterogeneous cell populations. Using the p53 Antibody for FACS, researchers can identify TP53-positive cell populations and analyze changes in p53 abundance following DNA damage, oncogenic signaling, or other cellular stress responses.

Stabilization of p53 protein frequently occurs after genotoxic stress or activation of tumor suppressor pathways. In these situations, intracellular p53 levels increase and can be measured by flow cytometry analysis using antibodies designed for fluorescence-based detection. The p53 Antibody for FACS enables evaluation of these cellular responses by measuring fluorescence intensity associated with intracellular p53 staining in individual cells.

The recombinant monoclonal clone TP53/1799R therefore provides a defined reagent for detection of Tumor protein p53 during fluorescence-activated cell sorting experiments. Through use of the p53 Antibody for FACS clone TP53/1799R, researchers can investigate TP53 pathway activation, quantify p53 expression across cell populations, and monitor intracellular tumor suppressor signaling at single-cell resolution.

Application Notes

The optimal dilution of the p53 Antibody for FACS / TP53 Flow Cytometry Antibody for each application should be determined by the researcher.

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 p53 protein was used as the immunogen for this p53 Antibody for FACS / TP53 Flow Cytometry Antibody.

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