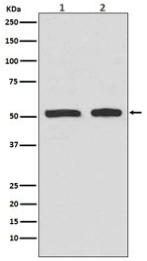
Phospho-TP53 (pSer9) Antibody / Stress Modulation and Regulatory Signaling Marker [clone ADO-20] (RQ5066)

Catalog No.	Formulation	Size
RQ5066	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

Bulk quote request

Availability	1-2 weeks
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	ADO-20
Purity	Affinity purified
UniProt	P04637
Applications	Western Blot : 1:500-1:2000
Limitations	This Phospho-TP53 (pSer9) Antibody / Stress Modulation and Regulatory Signaling Marker is available for research use only.



Phospho-TP53 Antibody Multi-Cell WB. Western blot analysis of human HepG2 and HeLa cell lysates treated with etoposide using phospho-TP53 antibody detecting TP53 phosphorylated at Ser9, clone ADO-20. A band is detected at approximately 53 kDa in both samples, consistent with the predicted molecular weight of TP53. Detection is consistent with stress-induced modulation of TP53 signaling.

Description

Tumor protein p53 (TP53), commonly referred to as p53, is a central regulator of cellular stress responses that integrates signals from DNA damage, metabolic changes, and oncogenic activation to control cell cycle arrest, apoptosis, and genomic stability. Phospho-TP53 (pSer9) Antibody, clone ADO-20, is designed to detect TP53 phosphorylated at serine 9, a regulatory site associated with modulation of p53 signaling activity rather than primary activation of the DNA damage

response. This antibody is part of our full phospho antibody collection which can be explored for additional phosphorylation-specific targets and pathway markers.

TP53 undergoes phosphorylation at multiple residues in response to cellular stress, with each site contributing to distinct aspects of protein regulation. While well-characterized phosphorylation sites such as Ser33 and Ser15 are directly associated with activation of p53 transcriptional programs following DNA damage, phosphorylation at Ser9 is thought to play a more nuanced role in modulating p53 activity and signaling dynamics. This modification may influence interactions with regulatory proteins and contribute to fine-tuning of downstream responses under stress conditions.

Phosphorylation at Ser9 can be observed in response to stress stimuli such as treatment with DNA-damaging agents including etoposide. In this context, detection of Ser9 phosphorylation reflects engagement of stress-responsive signaling pathways and provides insight into regulatory layers of TP53 signaling beyond canonical activation markers. Unlike strong activation-associated phosphorylation events, Ser9 phosphorylation may represent intermediate or context-dependent regulation of p53 function.

Unlike total TP53 detection, which reflects overall protein expression levels, phospho-specific detection at Ser9 provides information about the regulatory state of the protein. This distinction is important in studies examining how p53 signaling is modulated rather than simply activated, particularly in systems where subtle changes in pathway dynamics influence cellular outcomes.

Subcellularly, phosphorylated TP53 is primarily localized in the nucleus, where p53 functions as a transcription factor controlling expression of genes involved in stress response and cell fate determination. Nuclear staining is typically observed in immunodetection assays, although cytoplasmic localization may also occur depending on signaling context and regulatory state.

Dysregulation of TP53 signaling is a hallmark of many cancers, and alterations in phosphorylation-dependent regulatory mechanisms can contribute to impaired tumor suppressor function. Monitoring phosphorylation at sites such as Ser9 provides additional insight into the complexity of p53 regulation and the mechanisms that govern its activity under stress conditions.

Phospho-TP53 (pSer9) Antibody, clone ADO-20, enables selective detection of this regulatory phosphorylation event, supporting studies of stress signaling, pathway modulation, and TP53 functional dynamics.

To evaluate phosphorylation-dependent regulation of p53 stability, see our Phospho-p53 (Thr55) Antibody page.

Application Notes

Optimal dilution of the Phospho-TP53 (pSer9) Antibody / Stress Modulation and Regulatory Signaling Marker should be determined by the researcher.

Immunogen

A synthetic peptide specific to human p53 (surrounding pS9) was used as the immunogen for the Phospho-TP53 (pSer9) Antibody.

Storage

Store the Phospho-TP53 (pSer9) Antibody at -20oC.

Alternate Names

Phospho-p53 antibody, p53 pSer9 antibody, p53 Ser9 antibody, TP53 phospho antibody, phosphorylated p53 antibody, p53 stress signaling antibody, clone ADO-20 antibody