For Research Use Only

# Phospho-P53 (Ser46) Monoclonal antibody

Catalog Number:67900-1-Ig 1 Publications

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## Basic Information

Catalog Number:
67900-1-Ig

Size:
1000 ug/ml

Source:
Mouse

Isotype:
IgG1

GenBank Accession Number:
BC003596

GeneID (NCBI):
7157

UNIPROT ID:
P04637

Full Name:
tumor protein p53

Calculated MW:
44 kDa

Observed MW:
53 kDa

Purification Method:
Protein G purification

CloneNo.:
1D10A12

Recommended Dilutions:
WB 1:5000-1:50000
IHC 1:500-1:2000
IF/ICC 1:200-1:800

## Applications

Tested Applications:
WB, IHC, IF/ICC, FC (Intra), ELISA

Cited Applications:
WB

Species Specificity:
human

Cited Species:
human

***Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0***

Positive Controls:

WB : HT-29 cells, Calyculin A treated HT-29 cells, etoposide treated HT-29 cells, UV treated A431 cells, Calyculin A treated HEK-293 cells

IHC : human colon cancer tissue,

IF/ICC : etoposide treated HT-29 cells,

## Background Information

P53 is activated in response to alteration of normal cell homeostasis, including DNA damage, nutrient starvation, heat shock, virus infection, pH change, hypoxia, and oncogene activation. P53 maintains genetic stability by regulating different processes, such as cell-cycle arrest, DNA synthesis and repair, programmed cell death, and energy metabolism. In non-stressed conditions these proteins bind p53, ubiquitylate it and target it for degradation by the proteasome. In stressed conditions the function of the MdM2-MdM4 complex is blocked by phosphorylation, protein-binding events and/or enhanced degradation. (PMID: 19935675, PMID: 24379683)

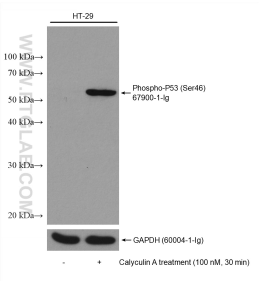
## Notable Publications

| Author | Pubmed ID | Journal | Application |
|---|---|---|---|
| Xiaolan Guo | 38546882 | J Cancer Res Clin Oncol | WB |

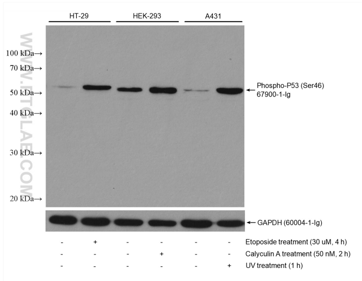
## Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

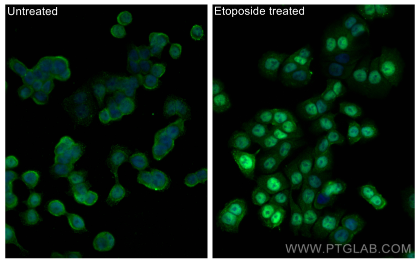
# Selected Validation Data



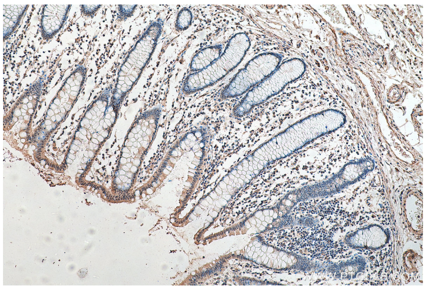

Non-treated and Calyculin A treated HT-29 cells were subjected to SDS PAGE followed by western blot with 67900-1-Ig (Phospho-P53 (Ser46) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with GAPDH antibody as loading control.



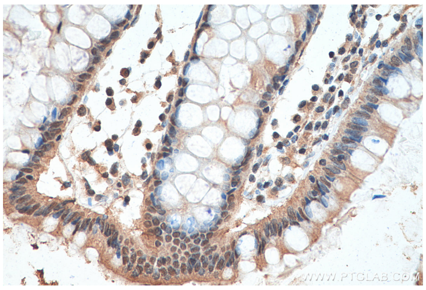

Various lysates were subjected to SDS PAGE followed by western blot with 67900-1-Ig (Phospho-P53 (Ser46) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with GAPDH antibody as loading control.



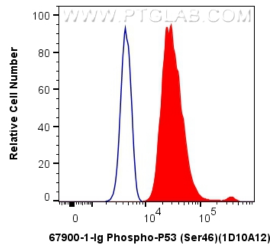

Immunofluorescent analysis of (4% PFA) fixed etoposide treated HT-29 cells using Phospho-P53 (Ser46) antibody (67900-1-Ig, Clone: 1D10A12 ) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 67900-1-Ig (Phospho-P53 (Ser46) antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).




Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 67900-1-Ig (Phospho-P53 (Ser46) antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).




1X10^6 HT-29 cells were intracellularly stained with 0.4 ug Anti-Human Phospho-P53 (Ser46) (67900-1-Ig, Clone:1D10A12) and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Mouse IgG1 Isotype Control (MOPC-21) (65124-1-Ig, Clone: MOPC-21) (blue). Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).