

# p-p53 (Ser 315): sc-101763

## BACKGROUND

p53 is a DNA-binding, oligomerization domain- and transcription activation domain-containing tumor suppressor that upregulates growth arrest and apoptosis-related genes in response to stress signals, thereby influencing programmed cell death, cell differentiation and cell cycle control mechanisms. p53 localizes to the nucleus yet can be chaperoned to the cytoplasm by the negative regulator MDM2, an E3 ubiquitin ligase that is upregulated in the presence of active p53, where MDM2 polyubiquitinates p53 for proteasome targeting. p53 can assemble into tetramers in the absence of DNA, fluctuates between latent and active (DNA-binding) conformations, and is differentially activated through posttranslational modifications including phosphorylation and acetylation. Mutations in the DNA-binding domain (DBD) (amino acids 110-286) of p53 can compromise energetically favorable association with *cis* elements and are implicated in several human cancers. Phosphorylation of p53 at residue Thr 155 is mediated by the COP9 signalosome (CSN) and targets p53 to ubiquitin-26S Proteasome-dependent degradation.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: TP53 (human) mapping to 17p13.1.

## SOURCE

p-p53 (Ser 315) is a rabbit polyclonal antibody raised against a short amino acid sequence containing Ser 315 phosphorylated p53 of human origin.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

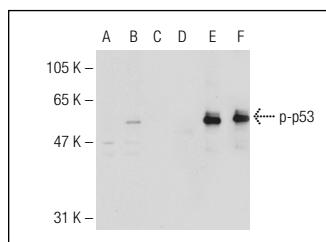
p-p53 (Ser 315) is recommended for detection of Ser 315 phosphorylated p53 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for p53 siRNA (h): sc-29435, p53 shRNA Plasmid (h): sc-29435-SH and p53 shRNA (h) Lentiviral Particles: sc-29435-V.

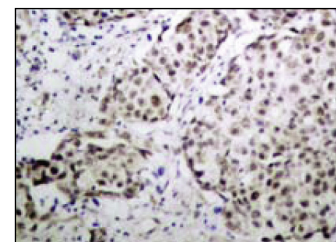
Molecular Weight of p-p53: 53 kDa.

Positive Controls: p53 (h3): 293T Lysate: sc-158802, A-431 + EGF whole cell lysate: sc-2202 or MCF7 + etoposide cell lysate: sc-2281.

## DATA



Western blot analysis of p53 phosphorylation in non-transfected: sc-117752 (A,D), untreated human p53 transfected: sc-158802 (B,E) and lambda protein phosphatase (sc-200312A) treated human p53 transfected: sc-158802 (C,F) 293T whole cell lysates. Antibodies tested include p-p53 (Ser 315): sc-101763 (A,B,C) and p53 (Pab 240): sc-99 (D,E,F).



p-p53 (Ser 315): sc-101763. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing nuclear staining.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **p-p53 (59.Ser 315): sc-135772** or **p-p53 (64.Ser 315): sc-135773**, our highly recommended monoclonal alternatives to p-p53 (Ser 315).