

# p53 (FL-393): sc-6243



The Power to Question

## BACKGROUND

p53, a DNA-binding, oligomerization domain- and transcription activation domain-containing tumor suppressor, 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. MDM2 is an E3 ubiquitin ligase that is upregulated in the presence of active p53, where it poly-ubiquitinates p53 for proteasome targeting. p53 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) of p53, amino acids 110-286, can compromise energetically-favorable association with *cis* elements and are implicated in several human cancers.

## CHROMOSOMAL LOCATION

Genetic locus: TP53 (human) mapping to 17p13.1; Trp53 (mouse) mapping to 11 B3.

## SOURCE

p53 (FL-393) is a rabbit polyclonal antibody raised against amino acids 1-393 mapping at the C-terminus of p53 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-6243 X, 200 µg/0.1 ml.

p53 (FL-393) is available conjugated to agarose (sc-6243 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-6243 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-6243 PE), fluorescein (sc-6243 FITC), Alexa Fluor® 488 (sc-6243 AF488) or Alexa Fluor® 647 (sc-6243 AF647), 200 µg/ml, for IF, IHC(P) and FCM.

p53 (FL-393) is available conjugated to either TRITC (sc-6243 TRITC), 200 µg/ml or Alexa Fluor® 405 (sc-6243 AF405), 100 µg/2 ml, for IF, IHC(P) and FCM.

## APPLICATIONS

p53 (FL-393) is recommended for detection of p53 of mouse, rat and 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10<sup>6</sup> cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for p53 siRNA (h): sc-29435, p53 siRNA (m): sc-29436, p53 shRNA Plasmid (h): sc-29435-SH, p53 shRNA Plasmid (m): sc-29436-SH, p53 shRNA (h) Lentiviral Particles: sc-29435-V and p53 shRNA (m) Lentiviral Particles: sc-29436-V.

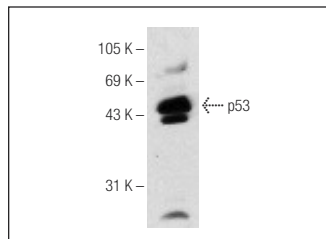
p53 (FL-393) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of p53: 53 kDa.

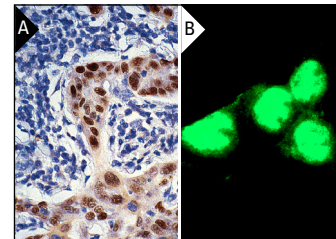
## STORAGE

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

## DATA



chicken anti-rabbit IgG-HRP: sc-2963. Western blot analysis of p53 expression in mouse LacZ whole cell lysate. Antibody tested: p53 (FL-393): sc-6243.



p53 (FL-393): sc-6243. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue. Note nuclear staining of ductal epithelia (A). Immunofluorescence staining of methanol-fixed A-431 cells showing nuclear localization (B).

## SELECT PRODUCT CITATIONS

1. Takaoka, A., et al. 2003. Integration of interferon- $\alpha/\beta$  signalling to p53 responses in tumour suppression and antiviral defence. *Nature* 424: 516-523.
2. Xu, Y.M., et al. 2015. Proteome profiling of cadmium-induced apoptosis by antibody array analyses in human bronchial epithelial cells. *Oncotarget* 7: 6146-58.
3. Sannigrahi, M.K., et al. 2016. Detection of active human papilloma virus-16 in head and neck cancers of Asian North Indian patients. *Oral Dis.* 22: 62-68.
4. Naylor, R.M., et al. 2016. Nuclear pore protein NUP88 activates anaphase-promoting complex to promote aneuploidy. *J. Clin. Invest.* 126: 543-559.
5. Jewett, K.A., et al. 2016. Feedback modulation of neural network synchrony and seizure susceptibility by Mdm2-p53-Nedd4-2 signaling. *Mol. Brain* 9: 32.
6. Pirlot, C., et al. 2016. Melanoma antigen-D2: a nucleolar protein undergoing delocalization during cell cycle and after cellular stress. *Biochim. Biophys. Acta* 1863: 581-595.

## RESEARCH USE

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

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Try **p53 (DO-1): sc-126** or **p53 (Pab 240): sc-99**, our highly recommended monoclonal alternatives to p53 (FL-393). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **p53 (DO-1): sc-126**.