p53 (pAb 122): sc-56182

**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 (pAb 122) is a mouse monoclonal antibody raised against SV40 transformed B4 cells of mouse origin.

**PRODUCT**

Each vial contains 200 µg IgG2b in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p53 (pAb 122) is available conjugated to agarose (sc-56182 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-56182 HRP), 200 µg/ml for WB, [HOP] and ELISA; to either phycoerythrin (sc-56182 PE), fluorescein (sc-56182 FITC), Alexa Fluor® 488 (sc-56182 AF488), Alexa Fluor® 546 (sc-56182 AF546), Alexa Fluor® 594 (sc-56182 AF594) or Alexa Fluor® 647 (sc-56182 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 580 (sc-56182 AF580) or Alexa Fluor® 790 (sc-56182 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

p53 (pAb 122) is recommended for detection of a conserved, denaturation-resistant determinant of the p53 protein 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) and flow cytometry (1 µg per 1 x 10⁶ cells).


Molecular Weight of p53: 53 kDa.


**DATA**

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

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

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