**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 modications, 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 (D-11) is a mouse monoclonal antibody raised against amino acids 1-393 representing full length p53 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p53 (D-11) is available conjugated to agarose (sc-17846 AC), 500 µg/0.25 ml agarose in 1 ml, for IP, to HRP (sc-17846 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-17846 PE), fluorescein (sc-17846 FITC), Alexa Fluor® 488 (sc-17846 AF488), Alexa Fluor® 546 (sc-17846 AF546), Alexa Fluor® 594 (sc-17846 AF594) or Alexa Fluor® 647 (sc-17846 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-17846 AF680) or Alexa Fluor® 790 (sc-17846 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

p53 (D-11) is recommended for detection of p53 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:500), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:50, dilution range 1:500-1:5000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).


Molecular Weight of p53: 53 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, A549 cell lysate: sc-2413 or p53 (m): 293T Lysate: sc-125766.

**STORAGE**

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

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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