**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-ubiquinates 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.

**References**


**Chromosomal Location**

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

**Source**

p53 (DO-1) is a mouse monoclonal antibody epitope mapping between amino acid residues 11-25 at the N-terminus of p53 of human origin.

**Product**

Each vial contains 200 µg IgG₂κ kappa light chain 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-126 X, 200 µg/0.1 ml.

p53 (DO-1) is available conjugated to agarose (sc-126 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-126 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-126 PE), fluorescein (sc-126 FITC), Alexa Fluor® 488 (sc-126 AF488), Alexa Fluor® 546 (sc-126 AF546), Alexa Fluor® 594 (sc-126 AF594) or Alexa Fluor® 647 (sc-126 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FC; and to either Alexa Fluor® 680 (sc-126 AF680) or Alexa Fluor® 790 (sc-126 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FC.

In addition, p53 (DO-1) is available conjugated to biotin (sc-126 B), 200 µg/ml, for WB, IHC(P) and ELISA; and to either TRITC (sc-126 TRITC), 200 µg/ml or Alexa Fluor® 405 (sc-126 AF405, 200 µg/ml), 100 tests in 2 ml, for IF, IHC(P) and FC.

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**Storage**

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

**Applications**

p53 (DO-1) is recommended for detection of wild type and mutant p53 under denaturing and non-denaturing conditions 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) and flow cytometry (1 µg per 1 x 10⁶ cells).

p53 (DO-1) X TransCruz antibody is recommended for gel supershift and ChIP applications.

**Data**

**Select Product Citations**


**Research use**

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