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## *p53 Monoclonal Antibody*

<b>CATALOG NUMBER:</b>	SG4110-28
<b>QUANTITY:</b>	200µg
<b>ISOTYPE:</b>	Mouse IgG2a
<b>DESCRIPTION:</b>	Monoclonal antibodies are produced by immunizing mouse with full length His-tagged p53 protein.
<b>APPLICATION</b>	Western Blot, Immunoprecipitation
<b>FORMAT:</b>	1 × PBS with 50% glycerol
<b>RECOMMENDED ANTIBODY DILUTION:</b>	Western Blotting: 1µg/ml



**Figure 1:** Western Blot analysis of cell lysate (lane 1) and cell lysate expressing p53 (lane 2).

<b>STORAGE/HANDLING:</b>	Antibody is recommended being stored at -20 . Avoid repeated freeze-thaw cycles.
<b>USAGE:</b>	FOR RESEARCH USE ONLY. NOT FOR HUMAN USE.

### **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, an E3 ubiquitin ligase that is upregulated in the presence of active p53, where MDM2 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, amino acids 110-286) of p53 can compromise energetically favorable association with cis elements and are implicated in several human cancers.