

## DATASHEET

Version: 2016-08-17

**p53 Antibody (5H7B9), mAb, Mouse****Cat. No.:** A01767-40**Size:** 40 µg**Synonyms:** Tumor protein p53 mAb;**Description:**

The p53 tumor suppressor protein plays a major role in cellular response to DNA damage and other genomic aberrations. It is situated at the crossroads of signalling pathways that are essential for cell growth regulation and apoptosis. In normal unstressed cells, the level of p53 protein is downregulated via the binding of proteins such as MDM2, COP1, PIRH2 or JNK that promote p53 degradation via the ubiquitin/proteasome pathway. As most of these genes are up regulated by p53, this lead to a regulation loop that will keep p53 level very low in a normal cells. Alternative splicing of the human p53 gene gives rise of p53 beta, p53 gamma, Delta 40p53 (also known as p44, p47 or delat N p53), Delta 40p53 beta, Delta 40 p53gamma, Delta 133p53, Delta 133p53 beta, and Delta 133p53 gamma. GenScript **p53 Antibody (5H7B9), mAb, Mouse** is produced from the hybridoma resulting from fusion of SP2/0-Ag14 myeloma and B-lymphocytes obtained from mouse immunized with human recombinant wild type p53 (wt p53).

**Immunogen:** Human recombinant wild type p53**Host:** Mouse**Antigen Synonyms:** Human**Conjugation:** Unconjugated**Fusion Partner:**

Spleen cells were fused with SP2/0-Ag14 mouse myeloma cells.

**Formulation:**

0.5 mg/ml, lyophilized with PBS, pH 7.4, containing 0.02% sodium azide.

**Clone:** 5H7B9**Example****Ig Subclass:** IgG2a

**Specificity:** **p53 Antibody (5H7B9), mAb, Mouse** detects endogenous levels of p53 protein. Special reactivity with p53 isoforms of GenScript p53 antibody clones are tested by Western blot and described in the below table.

**Purification:** Protein A affinity column**Applications:**

Working concentrations for specific applications should be determined by the investigator. The appropriate concentrations may be affected by secondary antibody affinity, antigen concentration, the sensitivity of the method of detection, temperature, the length of the incubations, and other factors. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

**ELISA:** 0.05-0.1 µg/ml**Western blot:** 1 µg/ml**Flow cytometry:** 1-3 µg for 1 x 10<sup>6</sup> cells**Other applications:**User-optimized

**Species Reactivity:** Human. Reactivity to other species is not tested yet.

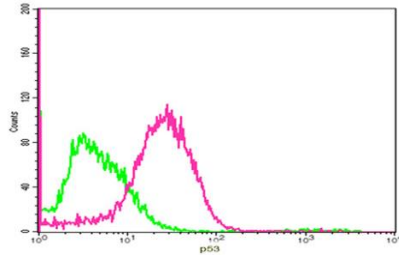
**Reconstitution:**

Reconstitute the lyophilized powder with deionized water (or equivalent) to make antibody concentration of 0.5 mg/ml.

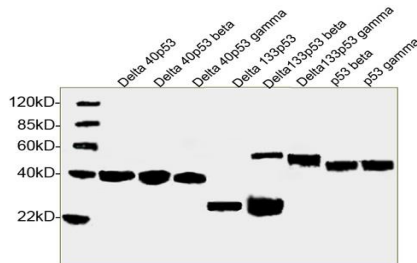
**Storage:**

The antibody is stable in lyophilized form if stored at -20°C or below. The reconstituted antibody can be stored for 2-3 weeks at 2-8°C. For long term storage, aliquot and store at -20°C or below. Avoid repeated freezing and thawing cycles.

Isoform Product	A01767 (5H7B9)	A01768 (2D2G6)	A01769 (5E8A3)	A01770 (6F2D3)	A01771 (2G5F7)
wt p53	+	+	+	+	+
p53 β	+	+	+	+	-
p53 γ	+	+	-	+	-
Δ 40p53	+	-	+	-	+
Δ 40p53 β	+	-	+	-	-
Δ 40p53 γ	+	-	+	-	-
Δ 133p53	+	-	-	-	+
Δ 133p53 β	+	-	-	-	-
Δ 133p53 γ	+	-	-	-	-



Flow cytometric analysis of HEK293 cells using p53 Antibody (5H7B9), mAb, Mouse (A01767; red histogram) or with an isotype control antibody (A01007; green histogram).



Western blot analysis of human recombinant p53 isoforms using p53 Antibody (5H7B9), mAb, Mouse (A01767, 1 µg/ml).

For Delta 40p53: Predicted Size: 41 KD; Observed Size: 40 KD

For Delta 40p53 beta: Predicted Size: 35 KD; Observed Size: 40 KD

For Delta 40p53 gamma: Predicted Size: 36 KD; Observed Size: 40 KD

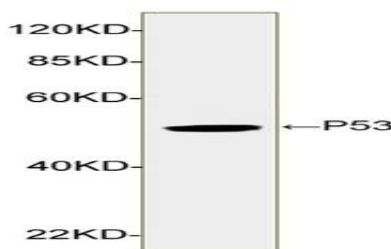
For Delta 133p53: Predicted Size: 31 KD; Observed Size: 31 KD

For Delta 133p53 beta: Predicted Size: 26 KD; Observed Size: 31 KD

For Delta 133p53 gamma: Predicted Size: 53 KD; Observed Size: 53 KD

For p53 beta: Predicted Size: 39 KD; Observed Size: 47 KD

For p53 gamma: Predicted Size: 40 KD; Observed Size: 47 KD



Western blot analysis of UV-treated HEK293 cell lysates using p53 Antibody (5H7B9), mAb, Mouse (A01767, 1 µg/ml).

The signal was developed with IRDye™ 800 Conjugated Goat Anti-Mouse IgG.

Predicted Size: 53 KD

Observed Size: 53 KD