



## RayBiotech, Inc.

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### Certificate of Analysis and Data Sheet

## MOUSE ANTI HUMAN p53 (aa20-25)

With HRP-conjugated secondary antibody

**Catalog No.**  
DS-MB-02058

**Species:**  
Human

**Isotype:**  
Mouse Ig G2b

### Description

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.

### Applications

Table Summary of antibody applications and working conditions

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA	•			
Western Blotting	•			1:1000
Immunohistology - frozen	•			
Immunohistology - paraffin	•			* 1:25
Immunohistology - resin			•	
Immunoprecipitation				
Flow Cytometry			•	
Immunofluorescence staining			•	
Neutralization			•	

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application.

\* Heat induced epitope retrieval with 0.01M citrate buffer, pH 6.0, is recommended

**The products are furnished for LABORATORY RESEARCH USE ONLY.**

**Not for diagnostic or therapeutic use.**



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### **Preparation**

Immunogen was recombinant protein derived from human p53. This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with the immunogen. The IgG fraction of tissue culture supernatant was purified by Protein G affinity chromatography.

### **Specificity**

DS-MB-02059 recognizes the p53 human tumor suppressor protein, binding to both wild type and mutant forms. Cross reactivity with bovine, cat, and sheep are expected from sequence similarity. Will not cross react with mouse nor rat.

Clone DO-1 recognizes an epitope at the N-terminal at the end of p53 between amino acids 20-25.

### **Reconstitution**

Supplied as 100 µg of purified antibody. It is reconstituted with 100 µl of sterile PBS. Its final concentration is 1.0 mg/ml. **Please avoid freeze-thaw cycles.**

### **Secondary Antibody Applications**

<b>Options</b> <b>Functions</b>	<b>YES</b>	<b>NO</b>	<b>Not determined</b>	<b>Recommended Work dilution or concentration</b>
Immunoassay (ELISA, Western blot)	•			1:5000-1:10000

### **Storage**

Store at -20°C, if not intended for use within a month. Keep it at 4°C and minimize freezing and thawing when use.

### **Reference**

Hupp, T.R., Meek, D.W., Midgley, C.A. and Lane, D.P. 1992. Regulation of the specific DNA binding function of p53. Cell 71: 875-886.

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