

**p53R2 Antibody**  
Catalog # ASC10128**Specification****p53R2 Antibody - Product Information**

Application	WB, IHC, IF
Primary Accession	<a href="#">Q7LG56</a>
Other Accession	<a href="#">BAA92434</a> , <a href="#">50484</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 397 kDa
Application Notes	Observed: 43 kDa KDa p53R2 antibody can be used for detection of p53R2 by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 1 µg/mL. For immunofluorescence start at 20 µg/mL.

**p53R2 Antibody - Additional Information**

Gene ID	50484
<b>Other Names</b>	
p53R2 Antibody: P53R2, MTDPS8A, MTDPS8B, P53R2, Ribonucleoside-diphosphate reductase subunit M2 B, TP53-inducible ribonucleotide reductase M2 B, p53R2, ribonucleotide reductase M2 B (TP53 inducible)	

**Target/Specificity**

p53R2 antibody was raised against a 16 amino acid peptide near the amino terminus of human p53R2. The immunogen is located within the first 50 amino acids of p53R2.

**Reconstitution & Storage**

p53R2 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

p53R2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**p53R2 Antibody - Protein Information**

**Name** RRM2B

**Synonyms** P53R2

**Function**

Plays a pivotal role in cell survival by repairing damaged DNA in a p53/TP53-dependent manner. Supplies deoxyribonucleotides for DNA repair in cells arrested at G1 or G2. Contains an iron-tyrosyl free radical center required for catalysis. Forms an active ribonucleotide reductase (RNR) complex with RRM1 which is expressed both in resting and proliferating cells in response to DNA damage.

#### Cellular Location

Cytoplasm. Nucleus. Note=Translocates from cytoplasm to nucleus in response to DNA damage

#### Tissue Location

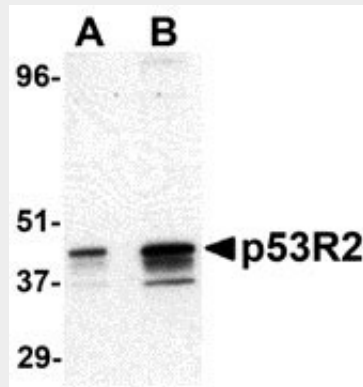
Widely expressed at a high level in skeletal muscle and at a weak level in thymus. Expressed in epithelial dysplasias and squamous cell carcinoma.

### p53R2 Antibody - Protocols

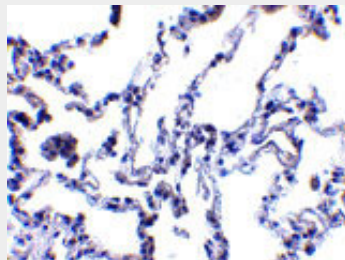
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

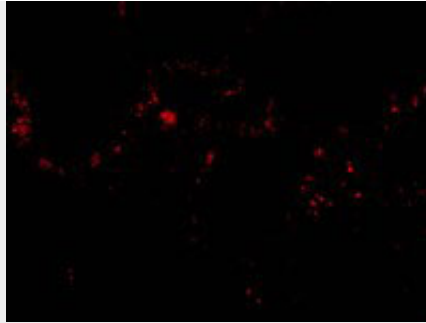
### p53R2 Antibody - Images



Western blot analysis of p53R2 expression in A431 cell lysate at (A) 0.5 and (B) 1 µg/mL.



Immunohistochemistry of p53R2 in human lung tissue with p53R2 antibody at 1 µg/mL.



Immunofluorescence of p53R2 in Human Lung tissue with p53R2 antibody at 20 µg/mL.

### **p53R2 Antibody - Background**

**p53R2 Antibody:** The p53 tumor-suppressor gene integrates numerous signals that control cell life and death. Several novel molecules involved in p53 signaling, including p53R2, Chk2, p53AIP1, Noxa, PIDD, and PID/MTA2, were recently discovered. p53R2 is a p53 inducible gene that contains a p53 binding sequence and encodes a subunit of the enzyme ribonucleotide reductase. p53R2 is induced by the reagents, ultraviolet and gamma-irradiation that cause DNA damages. The product of p53R2 gene is directly involved in the p53 checkpoint for repair of damaged DNA. The isoform of the p53 family member p73 also induces p53R2 expression. p53R2 is an important target of p53 for tumor suppression.

### **p53R2 Antibody - References**

Tanaka H, Arakawa H, Yamaguchi T, et al. A ribonucleotide reductase gene involved in a p53-dependent cell-cycle checkpoint for DNA damage. *Nature* 2000; 404:42-9.  
Matsuoka S, Huang M, and Elledge SJ. Linkage of ATM to cell cycle regulation by the Chk2 protein kinase. *Science* 1998;2 82:1893-7.  
Oda E, Ohki R, Murasawa H, et al. Noxa, a BH3-only member of the Bcl-2 family and candidate mediator of p53-induced apoptosis. *Science* 2000; 288:1053-8.  
Oda K, Arakawa H, Tanaka T, et al. p53AIP1, a potential mediator of p53-dependent apoptosis, and its regulation by Ser-46-phosphorylated p53. *Cell* 2000; 102:849-62.