Datasheet for ABIN487475

anti-p53 antibody (pSer392)

3 Images

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Overview

Quantity:	0.1 mg
Target:	p53 (TP53)
Binding Specificity:	AA 378-393, pSer392
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This p53 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Immunogen:	Synthetic phosphopeptide corresponding to amino acids 378-393 of Human p53. AA Sequence: SRHKKLMFKTEGPDS(phos)D
Clone:	FPS392
Isotype:	IgG1
Specificity:	This antibody reacts with Human p53 phosphorylated at Ser392.
Cross-Reactivity (Details):	Species reactivity (tested):Human.
Characteristics:	Synonyms: Cellular tumor antigen p53, Tumor suppressor p53, Phosphoprotein p53, NY-CO-13
Purification:	Protein-A Sepharose Chromatography

Target Details

Target:	p53 (TP53)
Alternative Name:	p53 (TP53) (TP53 Products)
Background:	P53 tumor suppressor proteins play a critical role in cellular defense against DNA-damaging reagents. Activation of p53 causes cell cycle arrest and sometimes, apoptosis, resulting in the prevention of genetically damaged cells from proliferating. DNA damage increases p53 protein levels and activates transcription of the p21WAF1/CIP1 gene. The p21WAF1/CIP1 protein binds to and inhibits the cell cycle regulator cdc2 kinase, causing G1 arrest. p53 is regulated by phosphorylation at multiple sites by several different protein kinases. Phosphorylation on N-terminal transactivation domain, especially Ser15, Thr18, Ser20, and Ser37, is believed to affect interaction with the negative regulator MDM2 and hence contribute to the stabilization of p53. Phosphorylation on C-terminal regulatory domain, Ser315 and Ser392 in particular is believed to enhance the specific DNA binding of p53 in vitro.Synonyms: Cellular tumor antigen p53, NY-CO-13, Phosphoprotein p53, Tumor suppressor p53
Gene ID:	7157
UniProt:	P04637
Pathways:	p53 Signaling, MAPK Signaling, PI3K-Akt Signaling, Apoptosis, AMPK Signaling, Chromatin Binding, ER-Nucleus Signaling, Positive Regulation of Endopeptidase Activity, Hepatitis C, Protein targeting to Nucleus, Autophagy, Warburg Effect

Application Details

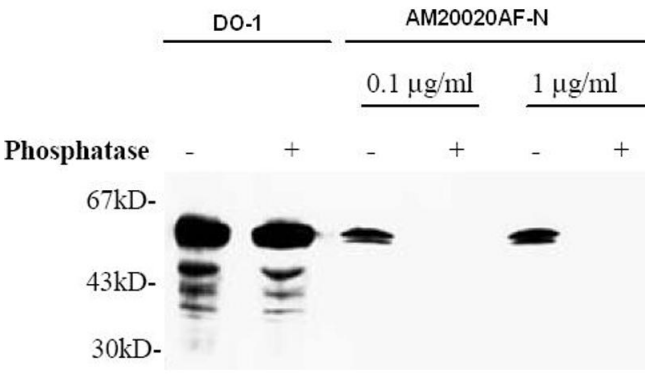
Application Notes:	Western blot: 0.1-1 µg/mLPositive Control: Raji cells. Immunohistochemistry: 1 µg/mLHeat treatment is necessary for Paraffin Embedded Sections. Microwave oven: 2 times for 10 minutes each in 10 mM citrate buffer (pH 6.5)Detailed procedure is provided in Protocols. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Protocol:	SDS PAGE & Western Blotting1) Wash the cells 3 times with PBS and suspend with 10 volumes of cold Lysis buffer (50mM Tris-HCl, pH 7. 2, 250 mM NaCl, 0. 1% NP-40, 2 mM EDTA, 10% glycerol) containingappropriate protease inhibitors. Incubate it at 4°C with rotating for 30 minutes, thensonicate briefly (up to 10 seconds). 2) Centrifuge the tube at 12,000 x g for 10 minutes at 4°C and transfer the supernatant toanother tube. Measure the protein concentration of the supernatant and add the Lysisbuffer to make 8 mg/mL solution. 3) Mix the sample with equal volume of Laemmli' sample buffer. 4) Boil the samples for 2 minutes and centrifuge. Load 10 µL of the sample per lane in a 1mm thick SDS-polyacrylamide gel for electrophoresis. 5) Blot

Application Details

	the protein to a polyvinylidene difluoride (PVDF) membrane at 1mA/cm2 for 1 hour ina semi-dry transfer system (Transfer Buffer: 25mM Tris, 190mM glycine, 20% MeOH). Seethe manufacture's manual for precise transfer procedure. 6) To reduce nonspecific binding, soak the membrane in 10% skimmed milk (in PBS, pH7. 4) for 1 hour at room temperature, or overnight at 4°C. 7) Incubate the membrane with primary antibody diluted with PBS, pH 7. 2 containing 1%skimmed milk as suggest in the APPLICATIONS for 1 hour at room temperature. (Theconcentration of antibody will depend on condition.)8) Wash the membrane with PBS-T [0. 05% Tween-20 in PBS] (5 minutes x 3 times). 9) Incubate the membrane with the 1: 10,000 HRP-conjugated anti-mouse IgG diluted with1% skimmed milk (in PBS, pH 7. 4) for 1 hour at room temperature. 10) Wash the membrane with PBS-T (5 minutes x 6 times). 11) Wipe excess buffer on the membrane, then incubate it ith appropriatechemiluminescence reagent for 1 minute. Remove extra reagent from the membrane bydabbing ith paper towel, and seal it in plastic wrap. 12) Expose to an X-ray film in a dark room for 5 minutes. Develop the film as usual. Thecondition for exposure and evelopment may vary. Positive Control for Western blotting: RajiImmunohistochemical staining for Paraffin-Embedded Sections : SAB method1) Deparaffinize the sections with Xylene 3 times for 3-5 minutes each. 2) Wash the slides with Ethanol 3 times for 3-5 minutes each. 3) Wash the slides with PBS 3 times for 3-5 minutes each. 4) Heat treatmentHeat treatment by microwave oven: Place the slides put on staining basket in 500 mLbeaker with 500 mL of 10 mM citrate buffer (pH 6. 5). Cover the beaker with plastic wrap,then process the slides 2 times for 10 minutes each at 500 W with micro wave oven. Let theslides cool down in the beaker at room temperature for about 40 minutes. 5) Remove the slides from the citrate buffer and cover each section with 3% H2O2 for 10minutes at room temperature to block endogenous peroxidase activity. Wash 3 times in
Restrictions:	For Research Use only

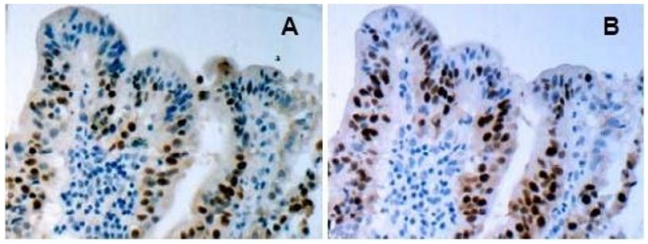
Handling

Concentration:	1.0 mg/mL
Buffer:	PBS, pH 7.2 containing 50 % Glycerol without preservatives
Preservative:	Without preservative
Storage:	-20 °C
Storage Comment:	Store the antibody undiluted at -20 °C. Shelf life: one year from despatch.
Expiry Date:	12 months



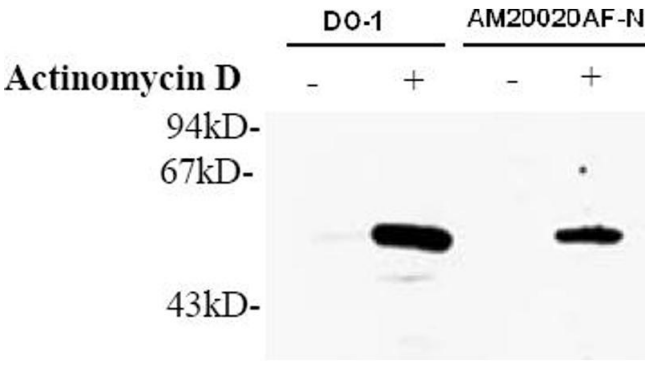
Western Blotting

Image 1.



Immunohistochemistry

Image 2.



Western Blotting

Image 3.